

STIC Search Report

EIC 1700

STIC Database Tracking Number: 104287

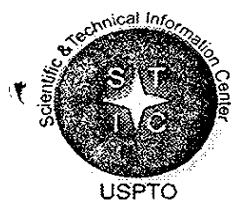
TO: Margaret B Medley
Location: CP3 4D09
Art Unit : 1714
September 24, 2003

Case Serial Number: 09/889438

From: Kathleen Fuller
Location: EIC 1700
CP3/4 3D62
Phone: 308-4290

Kathleen.Fuller@uspto.gov

Search Notes



STIC Search Results Feedback Form

EIC17000

Questions about the scope or the results of the search? Contact *the EIC searcher or contact:*

Kathleen Fuller, EIC 1700 Team Leader
308-4290, CP3/4-3D62

Voluntary Results Feedback Form

- I am an examiner in Workgroup: Example: 1713
➤ Relevant prior art **found**, search results used as follows:

- ☐ 102 rejection
- ☐ 103 rejection
- ☐ Cited as being of interest.
- ☐ Helped examiner better understand the invention.
- ☐ Helped examiner better understand the state of the art in their technology.

Types of relevant prior art found:

- ☐ Foreign Patent(s)
- ☐ Non-Patent Literature
(journal articles, conference proceedings, new product announcements etc.)

- Relevant prior art **not found**:

- ☐ Results verified the lack of relevant prior art (helped determine patentability).
- ☐ Results were not useful in determining patentability or understanding the invention.

Comments:

Drop off or send completed forms to STIC/EIC1700 CP3/4 3D62



22

Access DB# 104287

SEARCH REQUEST FORM

Scientific and Technical Information Center

Requester's Full Name: Margaret B. Melly Examiner #: 120850 Date: 9/22/03
 Art Unit: 1714 Phone Number 30 8-2518 Serial Number: 09/889 438
 Mail Box and Bldg/Room Location: 4D Results Format Preferred (circle): PAPER DISK E-MAIL

If more than one search is submitted, please prioritize searches in order of need.

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of Invention: STABILIZER MIXTURES

Inventors (please provide full names): FRAUCCIS GUGUMUS

Earliest Priority Filing Date: (EPO) 008160621.3 07/14/2000

For Sequence Searches Only Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.

Search for the stabilizer mixtures for Claim 1 and the various independent claims, and its use with organic material of synthetic polymer, e.g. polyolefin claims 20, 21,

STAFF USE ONLY

	Type of Search	Vendors and cost where applicable
Searcher: <u>K. Fuller</u>	NA Sequence (#) _____	STN _____
Searcher Phone #: _____	AA Sequence (#) _____	Dialog _____
Searcher Location: _____	Structure (#) <u>3</u>	Questel/Orbit _____
Date Searcher Picked Up: _____	Bibliographic _____	Dr.Link _____
Date Completed: <u>9/24/03</u>	Litigation _____	Lexis/Nexis _____
Searcher Prep & Review Time: <u>20</u>	Fulltext _____	Sequence Systems _____
Clerical Prep Time: _____	Patent Family _____	WWW/Internet _____
Online Time: <u>61</u>	Other _____	Other (specify) _____

=> FILE REG

FILE 'REGISTRY' ENTERED AT 11:39:43 ON 24 SEP 2003
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Property values tagged with IC are from the ZIC/VINITI data file
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STRUCTURE FILE UPDATES: 23 SEP 2003 HIGHEST RN 591719-82-3
DICTIONARY FILE UPDATES: 23 SEP 2003 HIGHEST RN 591719-82-3

TSCA INFORMATION NOW CURRENT THROUGH JULY 14, 2003

Please note that search-term pricing does apply when
conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. See HELP
PROPERTIES for more information. See STNote 27, Searching Properties
in the CAS Registry File, for complete details:
<http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf>

=> FILE HCAPLUS

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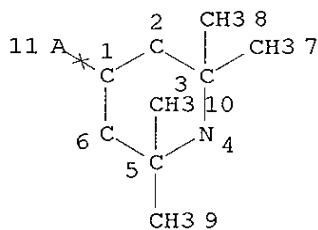
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FILE COVERS 1907 - 24 Sep 2003 VOL 139 ISS 13
FILE LAST UPDATED: 23 Sep 2003 (20030923/ED)

This file contains CAS Registry Numbers for easy and accurate
substance identification.

=> D QUE

L37 11 SEA FILE=REGISTRY ABB=ON (106990-43-6/BI OR 11097-59-9/BI OR
178261-60-4/BI OR 178261-61-5/BI OR 557-04-0/BI OR 557-05-1/BI
OR 70198-29-7/BI OR 71878-19-8/BI OR 9002-88-4/BI OR 9003-07-0/
BI OR 9010-79-1/BI)
L38 STR



20,621 structures from the query

NODE ATTRIBUTES:

NSPEC IS RC AT 11
 DEFAULT MLEVEL IS ATOM
 DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED
 NUMBER OF NODES IS 11

STEREO ATTRIBUTES: NONE

L40	20621	SEA FILE=REGISTRY SSS FUL L38
L41	11750	SEA FILE=HCAPLUS ABB=ON L40
L43	25	SEA FILE=HCAPLUS ABB=ON L41 (L) HINDER? (3A) AMINE# (L) MIXTURE?
L44	29	SEA FILE=HCAPLUS ABB=ON L41 AND HINDER? (3A) AMINE# (3A) MIXTURE?
L45	50	SEA FILE=HCAPLUS ABB=ON L43 OR L44
L46	8	SEA FILE=HCAPLUS ABB=ON L45 AND (ZN OR ZINC OR MG OR MAGNESIUM)
L51	37	SEA FILE=HCAPLUS ABB=ON (TWO OR DIFFERENT) (3A) HINDER? (3A) AMINE #
L52	24	SEA FILE=HCAPLUS ABB=ON L41 AND L51
L53	0	SEA FILE=HCAPLUS ABB=ON L52 AND (ZN OR ZINC OR MG OR MAGNESIUM)
L54	78	SEA FILE=HCAPLUS ABB=ON (TWO OR 2) (1W) HINDER? (3A) AMINE#
L55	50	SEA FILE=HCAPLUS ABB=ON L41 AND L54
L56	7	SEA FILE=HCAPLUS ABB=ON L55 AND (ZN OR ZINC OR MG OR MAGNESIUM)
L57	3	SEA FILE=REGISTRY ABB=ON L37 AND (1/ZN OR 1/MG)
L58	10218	SEA FILE=HCAPLUS ABB=ON L57
L59	4	SEA FILE=HCAPLUS ABB=ON L45 AND L58
L60	1	SEA FILE=HCAPLUS ABB=ON (L52 OR L54) AND L58
L61	14	SEA FILE=HCAPLUS ABB=ON L46 OR L53 OR L56 OR L59 OR L60

=> D L61 ALL 1-14 HITSTR

L61 ANSWER 1 OF 14 HCAPLUS COPYRIGHT 2003 ACS on STN
 AN 2003:527593 HCAPLUS
 DN 139:86453
 TI Heat- and weather-resistant electrically insulating resin composition for electric wire environment friendly in disposal
 IN Nishiguchi, Masaki; Yamada, Hitoshi
 PA The Furukawa Electric Co., Ltd., Japan
 SO Jpn. Kokai Tokkyo Koho, 17 pp.
 CODEN: JKXXAF
 DT Patent

KATHLEEN FULLER EIC 1700/PARKER LAW 308-4290

LA Japanese
 IC ICM C08L023-00
 ICS C08K005-07; C08K005-103; C08K005-13; C08K005-14; C08K005-17;
 C08K005-3475; C08K005-372; C08K009-06; C08L053-02; H01B003-00;
 H01B003-44; H01B007-295
 CC 38-3 (Plastics Fabrication and Uses)
 Section cross-reference(s): 39, 73, 76
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2003192846	A2	20030709	JP 2001-395486	20011226
PRAI	JP 2001-395486		20011226		
OS	MARPAT 139:86453				

AB The compn. contains (a) 100 parts of a polyolefin, an ethylene polymer, and/or a styrene block copolymer, (b) 60-300 parts of a metal hydrate surface-treated with a crosslinkable silane coupler, (c) 1-8 parts of a hindered phenol-type antioxidant, (d) 0.4-8 parts of a benzophenone- and/or benzotriazole-type UV absorber, (e) 1-7 parts of a hindered amine light stabilizer, (f) 0.01-1.0 part of an org. peroxide, and (g) 0.03-1.8 parts of a (meth)acrylate- and/or allyl-type crosslinking aid, which are heated and kneaded at a temp. higher than the m.p. of the polymer. The elec. insulating elec. wire is that obtained by covering of an elec. conductor and/or an optical fiber with the compn. optionally followed by crosslinking. Release of heavy metals or corrosive gases in disposal and incineration of the elec. wire is avoided. Thus, 67:33 ethylene-vinyl acetate copolymer (EV 180) 50, propylene block copolymer (PN 610) 15, a styrene-type elastomer (SEPS 4077) 25, softening agent (Diana PW 90) 5, maleated polyethylene (Admer XE 070) 5, **Mg(OH)2** treated with a vinyl-terminated silane coupler (Kisuma 5LH) 130, hindered phenol (Irganox 1010) 3, benzophenone (ADK Stab 1413) 2, **hindered amine** (ADK Stab LA 52) 1.5, org. peroxide (Perhexa 25B) 0.2, trimethylolpropane trimethacrylate (NK Ester 3G) 0.6, and Ca stearate 1 part were mixed, kneaded at 210.degree., and extruded on a Sn-coated Cu twisted wire to give the elec. wire.

ST heat weather resistant elec insulating resin; elec wire insulating cover polyolefin; ethylene vinyl acetate copolymer elec insulating; surface treated **magnesium** hydroxide fireproofing agent; crosslinkable resin compn elec wire; environment friendly elec insulating wire

IT Coupling agents
 (crosslinkable, metal hydrate treated with; in heat- and weather-resistant elec. insulating resin compn. for elec. wire environment friendly in disposal)

IT Electric cables
 Fire-resistant materials
 Heat-resistant materials
 Weathering
 (heat- and weather-resistant elec. insulating resin compn. for elec. wire environment friendly in disposal)

IT Polyolefins
 RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)
 (heat- and weather-resistant elec. insulating resin compn. for elec. wire environment friendly in disposal)

IT Electric conductors
 Optical fibers
 (heat- and weather-resistant elec. insulating resin compn. for elec. wire involving)

IT Isoprene-styrene rubber

RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)
 (hydrogenated, block, triblock, Septon 4077; heat- and weather-resistant elec. insulating resin compn. for elec. wire environment friendly in disposal)

IT Antioxidants
 Crosslinking
 Light stabilizers
 UV stabilizers
 (in heat- and weather-resistant elec. insulating resin compn. for elec. wire environment friendly in disposal)

IT Fireproofing agents
 (metal hydrates; in heat- and weather-resistant elec. insulating resin compn. for elec. wire environment friendly in disposal)

IT Crosslinking catalysts
 (org. peroxides; in heat- and weather-resistant elec. insulating resin compn. for elec. wire environment friendly in disposal)

IT 24937-78-8, Ethylene-vinyl acetate copolymer
 RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)
 (EV 180, V 527 4, EV 40LX; heat- and weather-resistant elec. insulating resin compn. for elec. wire environment friendly in disposal)

IT 1843-05-6, ADK Stab 1413 3896-11-5, ADK Stab LA 36
 RL: MOA (Modifier or additive use); USES (Uses)
 (UV absorber; in heat- and weather-resistant elec. insulating resin compn. for elec. wire environment friendly in disposal)

IT 6683-19-8, Irganox 1010 29598-76-3, ADK Stab AO 412S
 RL: MOA (Modifier or additive use); USES (Uses)
 (antioxidant; in heat- and weather-resistant elec. insulating resin compn. for elec. wire environment friendly in disposal)

IT 109-16-0, NK Ester 3G
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (crosslinking aid; in heat- and weather-resistant elec. insulating resin compn. for elec. wire environment friendly in disposal)

IT 78-63-7, Perhexa 25B
 RL: CAT (Catalyst use); USES (Uses)
 (crosslinking catalyst; in heat- and weather-resistant elec. insulating resin compn. for elec. wire environment friendly in disposal)

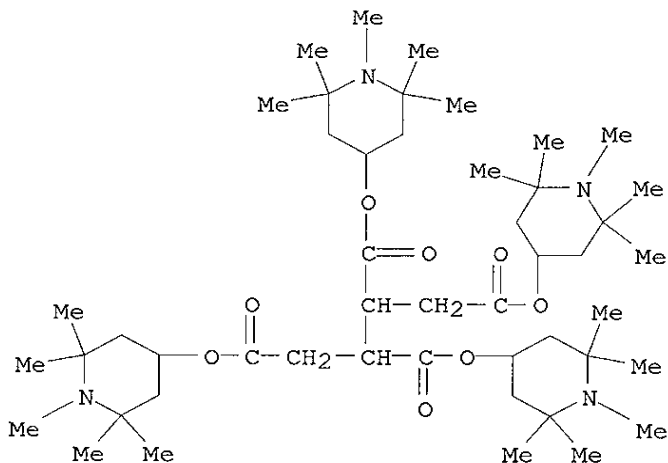
IT 1309-42-8, **Magnesium** hydroxide 265997-88-4, Kisuma 5LH
 RL: MOA (Modifier or additive use); USES (Uses)
 (fireproofing agent; in heat- and weather-resistant elec. insulating resin compn. for elec. wire environment friendly in disposal)

IT 9010-79-1, PN 610 9010-86-0, A 714 25213-02-9, Umerit 0540F
 112938-52-0, Admer XE 070
 RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)
 (heat- and weather-resistant elec. insulating resin compn. for elec. wire environment friendly in disposal)

IT 25038-32-8
 RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)
 (isoprene-styrene rubber, hydrogenated, block, triblock, Septon 4077; heat- and weather-resistant elec. insulating resin compn. for elec. wire environment friendly in disposal)

IT **91788-83-9**, ADK Stab LA 52
 RL: MOA (Modifier or additive use); USES (Uses)
 (light stabilizer; in heat- and weather-resistant elec. insulating resin compn. for elec. wire environment friendly in disposal)

IT 91788-83-9, ADK Stab LA 52
 RL: MOA (Modifier or additive use); USES (Uses)
 (light stabilizer; in heat- and weather-resistant elec. insulating
 resin compn. for elec. wire environment friendly in disposal)
 RN 91788-83-9 HCAPLUS
 CN 1,2,3,4-Butanetetracarboxylic acid, tetrakis(1,2,2,6,6-pentamethyl-4-
 piperidiny) ester (9CI) (CA INDEX NAME)



L61 ANSWER 2 OF 14 HCAPLUS COPYRIGHT 2003 ACS on STN
 AN 2003:274836 HCAPLUS
 DN 138:288742
 TI Propylene polymer-based compositions and their automobile interior parts
 IN Miyake, Yuichi; Inoue, Kaoru; Kobayashi, Akira; Murayama, Mitsuhiro
 PA Nippon Polychemicals Co., Ltd., Japan; Toyota Motor Corp.
 SO Jpn. Kokai Tokkyo Koho, 11 pp.
 CODEN: JKXXAF
 DT Patent
 LA Japanese
 IC ICM C08L053-00
 ICS B29C045-00; C08J005-00; C08K003-34; C08K005-098; C08K005-3432;
 C08L023-04; B29K023-00; B29L031-58
 CC 38-3 (Plastics Fabrication and Uses)
 Section cross-reference(s): 37

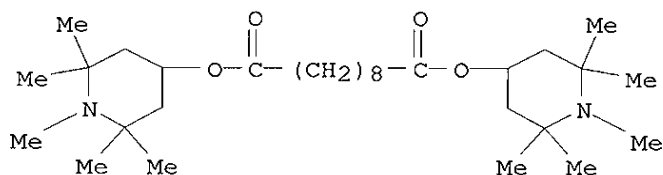
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2003105163	A2	20030409	JP 2001-298938	20010928
PRAI	JP 2001-298938		20010928		
OS	MARPAT 138:288742				

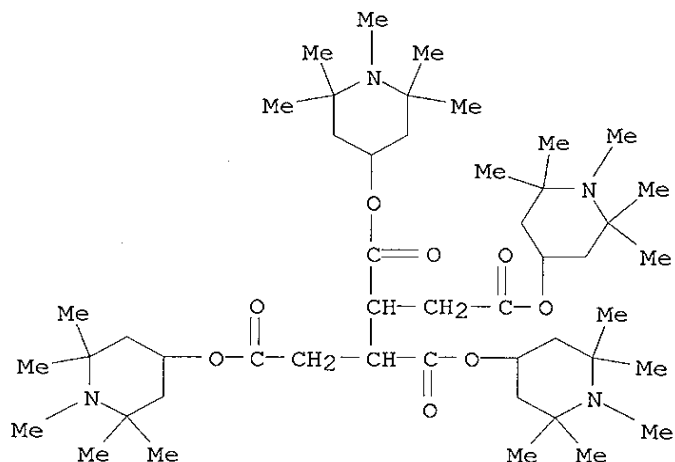
AB The compns. comprise (a) 20-74% propylene-ethylene block copolymer (I) with MFR (230.degree., 2.16 kg) 20-40 g/10 min, composed of 70-75% polypropylene part (A unit) with isotactic pentad fraction (IPF) .gtoreq.0.97 and MFR (230.degree., 2.16 kg) 100-200 g/10 min and 25-30% ethylene-propylene random copolymer part (B unit) with ethylene content 30-50% and Mw 300,000-500,000, (b) 5-59% I with MFR (230.degree., 2.16 kg) 1-40 g/10 min, composed of 70-95% A unit with MFR 1-100 g/10 min and B

- unit with MFR (230.degree., 2.16 kg) 1-40 g/10 min, (c) 3-10% HDPE with MFR (190.degree., 2.16kg) 5-10 g/10 min and d. .gtoreq.0.950 g/cm3, (d) 0-12% ethylene-1-butene copolymer and/or ethylene-1-octene copolymer (EOR) with MFR (230.degree., 2.16 kg) 1-10 g/10 min, (e) 15-25% talc, where a + b + c + d + e = 100 parts, (f) 0.1-2 parts **hindered amine** compds. having 1,2,2,6,6-pentamethyl-4-piperidyl group in the mol., and (g) 0.1-2 parts fatty acid metal salts represented by (RCO2)nX (R = monovalent aliph. hydrocarbyl with mol. wt. 290-500, X = Zn, Mg, Ca, Li; n = 1, 2). The compns. are esp. useful for instrument panels of automobiles. Thus, a compn. comprised 45 parts I (MFR 30 g/10 min, A unit MFR 110 g/10 min, A unit IPF 0.98, B unit content 25%, ethylene content in B unit 37%, and Mw of B unit 370,000), 23 parts I (MFR 30, A unit MFR 50 g/10 min, B unit content 9%), 6 parts HDPE (MFR 7 g/10 min, d. 0.951 g/cm3), 6 parts EOR (MFR 2.2 g/10 min, d. 0.862 g/cm3), 20 parts talc (LMS 200), 0.2 part tetrakis(1,2,2,6,6-pentamethyl-4-piperidyl)-1,2,3,4-butane tetracarboxylate, and 0.4 part Zn behenate. The compn. was kneaded at 220.degree. in the presence of Irganox 1010 (thermal stabilizer) and subsequently injection-molded to give test pieces having high mech. strengths, suppressed gloss, and antiscratching property.
- ST propylene polymer compn automobile interior; ethylene propylene block copolymer compn automobile interior; HDPE blend polypropylene compn automobile interior
- IT Amines, uses
RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)
(hindered, 1,2,2,6,6-pentamethyl-4-piperidyl-, weathering stabilizer; propylene polymer-based compns. for automobile interior parts)
- IT Automobiles
(interior parts; propylene polymer-based compns. for automobile interior parts)
- IT Fatty acids, uses
RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)
(metal salts, dispersing agents for talc; propylene polymer-based compns. for automobile interior parts)
- IT Polymer blends
RL: TEM (Technical or engineered material use); USES (Uses)
(propylene polymer-based compns. for automobile interior parts)
- IT 16529-65-0, **Zinc** behenate
RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)
(dispersing agents for talc; propylene polymer-based compns. for automobile interior parts)
- IT 9002-88-4, Polyethylene
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)
(high-d.; propylene polymer-based compns. for automobile interior parts)
- IT 14807-96-6, LMS 200, uses
RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)
(propylene polymer-based compns. for automobile interior parts)
- IT 25087-34-7, 1-Butene-ethylene copolymer 26221-73-8, Ethylene-1-octene copolymer 106565-43-9, Ethylene-propylene block copolymer
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)
(propylene polymer-based compns. for automobile interior parts)

IT 41556-26-7, Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate
 91788-83-9, Tetrakis(1,2,2,6,6-pentamethyl-4-piperidyl)-1,2,3,4-
 butane tetracarboxylate
 RL: MOA (Modifier or additive use); TEM (Technical or engineered material
 use); USES (Uses)
 (weathering stabilizer; propylene polymer-based compns. for automobile
 interior parts)
 IT 41556-26-7, Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate
 91788-83-9, Tetrakis(1,2,2,6,6-pentamethyl-4-piperidyl)-1,2,3,4-
 butane tetracarboxylate
 RL: MOA (Modifier or additive use); TEM (Technical or engineered material
 use); USES (Uses)
 (weathering stabilizer; propylene polymer-based compns. for automobile
 interior parts)
 RN 41556-26-7 HCAPLUS
 CN Decanedioic acid, bis(1,2,2,6,6-pentamethyl-4-piperidinyl) ester (9CI)
 (CA INDEX NAME)



RN 91788-83-9 HCAPLUS
 CN 1,2,3,4-Butanetetracarboxylic acid, tetrakis(1,2,2,6,6-pentamethyl-4-
 piperidinyl) ester (9CI) (CA INDEX NAME)



L61 ANSWER 3 OF 14 HCAPLUS COPYRIGHT 2003 ACS on STN
 AN 2002:857801 HCAPLUS
 DN 137:326088
 TI Composition comprising polypropylene prepared using a metallocene catalyst

KATHLEEN FULLER EIC 1700/PARKER LAW 308-4290

and stabilized by hindered amines
 IN Gugumus, Francois; Lelli, Nicola
 PA Ciba Specialty Chemicals Holding Inc., Switz.
 SO Fr. Demande, 73 pp.
 CODEN: FRXXBL
 DT Patent
 LA French
 IC ICM C08K005-3492
 ICS C08K005-3435; C08L023-10
 CC 37-6 (Plastics Manufacture and Processing)
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	FR 2815353	A1	20020419	FR 2001-13247	20011015
	US 2002077394	A1	20020620	US 2001-973425	20011009
	GB 2370276	A1	20020626	GB 2001-24377	20011011
	GB 2370276	B2	20021218		
	DE 10150793	A1	20020529	DE 2001-10150793	20011015
	NL 1019181	A1	20020418	NL 2001-1019181	20011016
	NL 1019181	C2	20020807		
	ES 2186577	A1	20030501	ES 2001-2281	20011016
	JP 2002128971	A2	20020509	JP 2001-319532	20011017
PRAI	EP 2000-810957	A	20001017		

OS MARPAT 137:326088

AB The compn. comprises propylene homopolymer or copolymers obtained via metallocene catalysis and a mixt. of stabilizers including alkyl- and aryl- and triazine-contg. polyamines, hindered amines, and hindered piperidines; a pigment; a UV absorber; org. and inorg. Ca salts or CaO or Ca(OH)₂; org. and inorg. **Zn** salts, ZnO, or **Zn**(OH)₂; and org. and inorg. **Mg** salts, MgO, or **Mg**(OH)₂. Polypropylene powder (100 parts) from metallocene catalysis was mixed with 0.05 parts pentaerythritol tetrakis(3-(3,5-di-tert-butyl-4-hydroxyphenyl)propionate), 0.10 parts tris(2,4-di-tert-butylphenyl)phosphite, 0.10 parts Ca stearate, N-(3-aminopropyl)-1,3-propanediamine, Bis(2,2,6,6-tetramethyl-4-piperidyl) sebacate, and a UV absorber. The compn. was compressed between Al foil sheets at 260.degree. to form 0.5 mm thick films; the films were subjected to weathering tests to assess the efficacy of the stabilizer mixt.; the carbonyl IR absorption band of the films was stable up to 2600 h of exposure vs. 250 h for polypropylene without stabilizer mixt.

ST polypropylene metallocene prepd compn stabilizer mixt amine; polyamine hindered amine piperidine stabilizer polypropylene; calcium magnesium zirconium salt amine stabilizer polypropylene

IT Polyamines

RL: MOA (Modifier or additive use); USES (Uses)
 (hindered amine and triazine-contg.; stabilizer **mixt.** of polyamines and **hindered amines** and piperidines in metallocene-prepd. polypropylene compns.)

IT Amines, uses

RL: MOA (Modifier or additive use); USES (Uses)
 (**hindered**; stabilizer **mixt.** of polyamines and **hindered amines** and piperidines in metallocene-prepd. polypropylene compns.)

IT UV stabilizers

(stabilizer **mixt.** of polyamines and **hindered amines** and piperidines in metallocene-prepd. polypropylene compns.)

IT 56-18-8, N-(3-Aminopropyl)-1,3-propanediamine 1305-62-0, Calcium

hydroxide (Ca(OH)₂), uses 1305-78-8, Calcium oxide, uses 1309-42-8, Magnesium hydroxide (Mg(OH)₂) 1309-48-4, Magnesium oxide (MgO), uses 1314-13-2, Zinc oxide (ZnO), uses 1592-23-0, Calcium stearate 6683-19-8, Pentaerythritol tetrakis(3-(3,5-di-tert-butyl-4-hydroxyphenyl)propionate) 20427-58-1, Zinc hydroxide (Zn(OH)₂) 31570-04-4, Tris(2,4-di-tert-butylphenyl)phosphite 36177-92-1, N-Butyl-2,2,6,6-tetramethyl-4-piperidineamine 52829-07-9, Bis(2,2,6,6-tetramethyl-4-piperidyl) sebacate 71878-19-8 72058-42-5, N,N'-Bis(2,2,6,6-tetramethyl-4-piperidyl)hexamethylenediamine-2-tert-octylamino-4,6-dichloro-s-triazine copolymer 121859-42-5 195300-79-9 288098-11-3

RL: MOA (Modifier or additive use); USES (Uses)

(stabilizer mixt. of polyamines and hindered amines and piperidines in metallocene-prepd. polypropylene compns.)

IT 9003-07-0, Polypropylene

RL: POF (Polymer in formulation); USES (Uses)

(stabilizer mixt. of polyamines and hindered amines and piperidines in metallocene-prepd. polypropylene compns.)

IT 36177-92-1, N-Butyl-2,2,6,6-tetramethyl-4-piperidineamine

52829-07-9, Bis(2,2,6,6-tetramethyl-4-piperidyl) sebacate

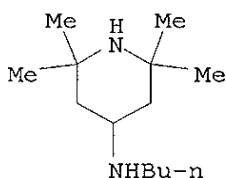
71878-19-8 72058-42-5, N,N'-Bis(2,2,6,6-tetramethyl-4-piperidyl)hexamethylenediamine-2-tert-octylamino-4,6-dichloro-s-triazine copolymer 121859-42-5 195300-79-9 288098-11-3

RL: MOA (Modifier or additive use); USES (Uses)

(stabilizer mixt. of polyamines and hindered amines and piperidines in metallocene-prepd. polypropylene compns.)

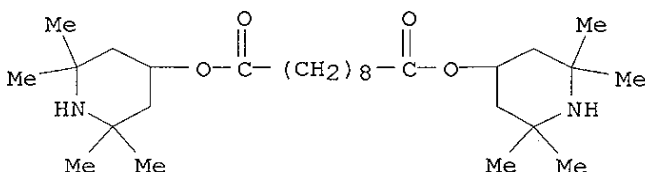
RN 36177-92-1 HCAPLUS

CN 4-Piperidinamine, N-butyl-2,2,6,6-tetramethyl- (9CI) (CA INDEX NAME)



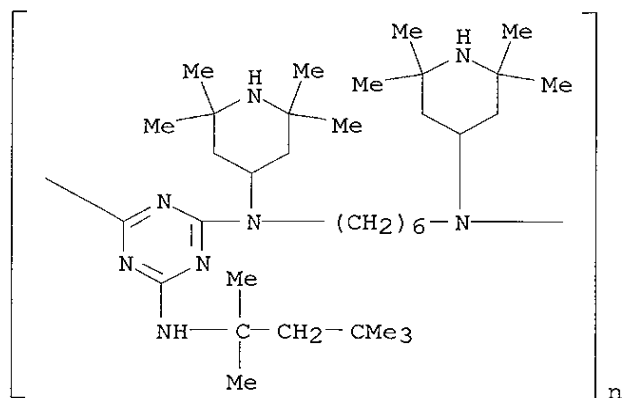
RN 52829-07-9 HCAPLUS

CN Decanedioic acid, bis(2,2,6,6-tetramethyl-4-piperidinyl) ester (9CI) (CA INDEX NAME)



RN 71878-19-8 HCAPLUS

CN Poly[[6-[(1,1,3,3-tetramethylbutyl)amino]-1,3,5-triazine-2,4-diyl][(2,2,6,6-tetramethyl-4-piperidiny)imino]-1,6-hexanediyl[(2,2,6,6-tetramethyl-4-piperidiny)imino]] (9CI) (CA INDEX NAME)



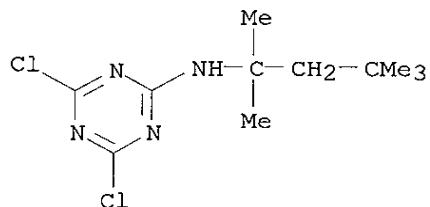
RN 72058-42-5 HCAPLUS

CN 1,6-Hexanediamine, N,N'-bis(2,2,6,6-tetramethyl-4-piperidiny)-, polymer with 4,6-dichloro-N-(1,1,3,3-tetramethylbutyl)-1,3,5-triazin-2-amine (9CI) (CA INDEX NAME)

CM 1

CRN 72058-41-4

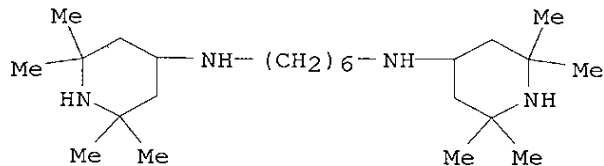
CMF C11 H18 C12 N4



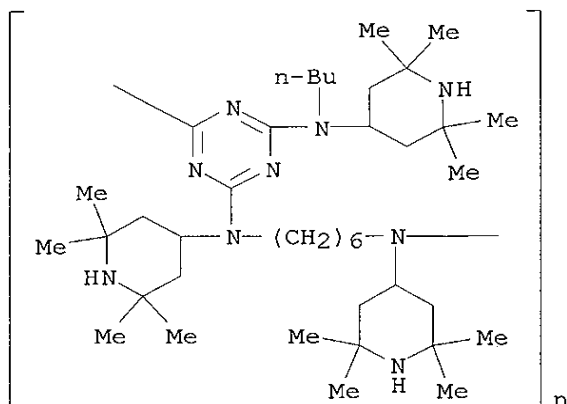
CM 2

CRN 61260-55-7

CMF C24 H50 N4



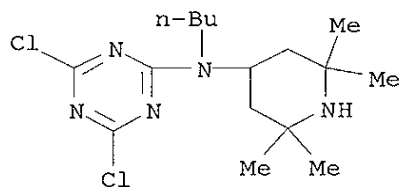
RN 121859-42-5 HCAPLUS
 CN Poly[[6-[butyl(2,2,6,6-tetramethyl-4-piperidinyl)amino]-1,3,5-triazine-2,4-diyl][(2,2,6,6-tetramethyl-4-piperidinyl)imino]-1,6-hexanediyl[(2,2,6,6-tetramethyl-4-piperidinyl)imino]] (9CI) (CA INDEX NAME)



RN 195300-79-9 HCAPLUS
 CN 1,6-Hexanediamine, N,N'-bis(2,2,6,6-tetramethyl-4-piperidinyl)-, polymer with N-butyl-4,6-dichloro-N-(2,2,6,6-tetramethyl-4-piperidinyl)-1,3,5-triazin-2-amine (9CI) (CA INDEX NAME)

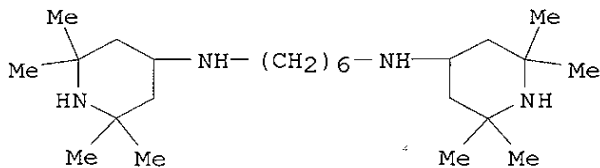
CM 1

CRN 63812-63-5
 CMF C16 H27 Cl2 N5

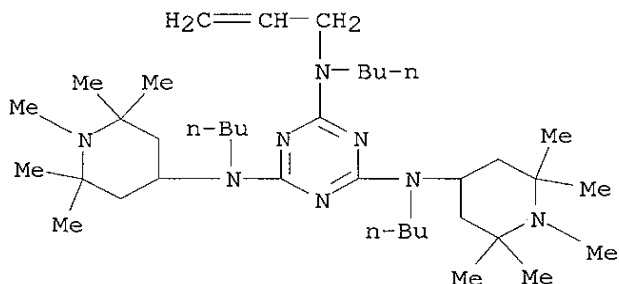


CM 2

CRN 61260-55-7
 CMF C24 H50 N4



RN 288098-11-3 HCAPLUS
 CN 1,3,5-Triazine-2,4,6-triamine, N,N',N''-tributyl-N,N'-bis(1,2,2,6,6-pentamethyl-4-piperidiny)-N''-2-propenyl- (9CI) (CA INDEX NAME)



L61 ANSWER 4 OF 14 HCAPLUS COPYRIGHT 2003 ACS on STN
 AN 2002:534135 HCAPLUS
 DN 137:63950
 TI Polymer-stabilizing mixtures containing hindered amines and compounds of zinc or magnesium
 IN Gugumus, Francois
 PA Ciba Specialty Chemicals Holding Inc., Switz.
 SO Fr. Demande, 137 pp.
 CODEN: FRXXBL
 DT Patent
 LA French
 IC ICM C08K005-098
 ICS C08K005-3435; C08K005-3492; C08K005-353; C08K003-22; C08L023-12
 CC 37-6 (Plastics Manufacture and Processing)
 FAN.CNT 1

applicant

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	FR 2811672	A1	20020118	FR 2001-9354	20010713
	FR 2811672	B1	20030801		
	US 2002077393	A1	20020620	US 2001-899438	20010705
	GB 2367298	A1	20020403	GB 2001-16531	20010706
	GB 2367298	B2	20030212		
	DE 10133535	A1	20020502	DE 2001-10133535	20010711
	NL 1018546	A1	20020115	NL 2001-1018546	20010713
	NL 1018546	C2	20020529		
	ES 2187282	A1	20030516	ES 2001-1646	20010713
	BE 1014298	A3	20030805	BE 2001-481	20010713
	BR 2001002893	A	20020226	BR 2001-2893	20010716
	JP 2002097467	A2	20020402	JP 2001-215771	20010716
PRAI	EP 2000-810621	A	20000714		
OS	MARPAT 137:63950				
AB	Mixts. contg. 2 hindered amines and .gtoreq.1 of Zn (in)org. salt, ZnO, Zn(OH)2, Mg (in)org. salt, MgO, and Mg(OH)2 are useful for stabilizing polyolefins against heat, light, and oxidn.				
ST	heat stabilizer hindered amine zinc compd mixt polyolefin; antioxidant hindered amine zinc compd mixt polyolefin; light stabilizer hindered amine magnesium compd mixt				

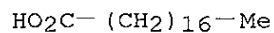
polyolefin
 IT Amines, uses
 RL: MOA (Modifier or additive use); USES (Uses)
 (hindered; polyolefin-stabilizing mixts. contg. hindered amines and
 compds. of **zinc** or **magnesium**)
 IT Antioxidants
 Heat stabilizers
 Heat-resistant materials
 Light stabilizers
 Light-resistant materials
 (polyolefin-stabilizing mixts. contg. hindered amines and compds. of
zinc or **magnesium**)
 IT Polyolefins
 RL: POF (Polymer in formulation); USES (Uses)
 (polyolefin-stabilizing mixts. contg. hindered amines and compds. of
zinc or **magnesium**)
 IT Hydroxides (inorganic)
 Oxides (inorganic), uses
 Salts, uses
 RL: MOA (Modifier or additive use); USES (Uses)
 (**zinc** or **magnesium**; polyolefin-stabilizing mixts.
 contg. hindered amines and compds. of **zinc** or
magnesium)
 IT 9002-88-4, Polyethylene
 RL: POF (Polymer in formulation); USES (Uses)
 (high-d.; polyolefin-stabilizing mixts. contg. hindered amines and
 compds. of **zinc** or **magnesium**)
 IT 557-04-0, **Magnesium** stearate 557-05-1,
Zinc stearate 11097-59-9, DHT 4A 70198-29-7,
 Tinuvin 622 71878-19-8, Chimassorb 944 106990-43-6,
 Chimassorb 119 178261-60-4 178261-61-5
 RL: MOA (Modifier or additive use); USES (Uses)
 (polyolefin-stabilizing mixts. contg. hindered amines and compds. of
zinc or **magnesium**)
 IT 9003-07-0, Polypropylene 9010-79-1, Ethylene-propylene copolymer
 RL: POF (Polymer in formulation); USES (Uses)
 (polyolefin-stabilizing mixts. contg. hindered amines and compds. of
zinc or **magnesium**)
 IT 557-04-0, **Magnesium** stearate 557-05-1,
Zinc stearate 11097-59-9, DHT 4A 70198-29-7,
 Tinuvin 622 71878-19-8, Chimassorb 944 106990-43-6,
 Chimassorb 119 178261-60-4
 RL: MOA (Modifier or additive use); USES (Uses)
 (polyolefin-stabilizing mixts. contg. hindered amines and compds. of
zinc or **magnesium**)
 RN 557-04-0 HCAPLUS
 CN Octadecanoic acid, magnesium salt (9CI) (CA INDEX NAME)

HO₂C-(CH₂)₁₆-Me

● 1/2 Mg

RN 557-05-1 HCAPLUS
 CN Octadecanoic acid, zinc salt (9CI) (CA INDEX NAME)

KATHLEEN FULLER EIC 1700/PARKER LAW 308-4290

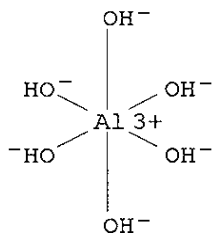


● 1/2 Zn

RN 11097-59-9 HCAPLUS
 CN Aluminate (Al(OH)₆³⁻), (OC-6-11)-, magnesium carbonate hydroxide (2:6:1:4)
 (9CI) (CA INDEX NAME)

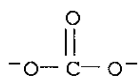
CM 1

CRN 18893-33-9
 CMF Al H6 O6
 CCI CCS



CM 2

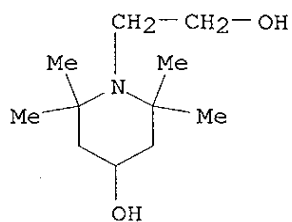
CRN 3812-32-6
 CMF C O3



RN 70198-29-7 HCAPLUS
 CN Butanedioic acid, polymer with 4-hydroxy-2,2,6,6-tetramethyl-1-piperidineethanol (9CI) (CA INDEX NAME)

CM 1

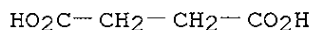
CRN 52722-86-8
 CMF C11 H23 N O2



CM 2

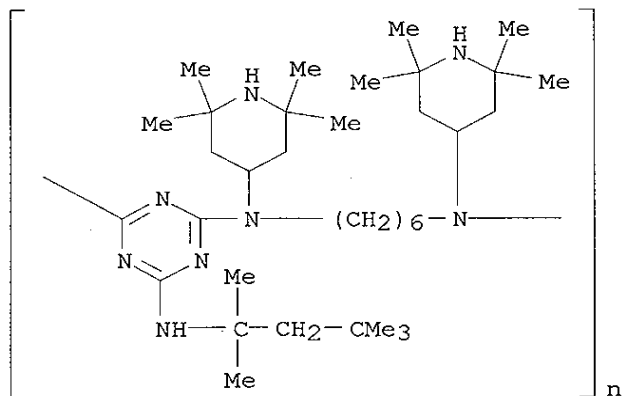
CRN 110-15-6

CMF C4 H6 O4



RN 71878-19-8 HCAPLUS

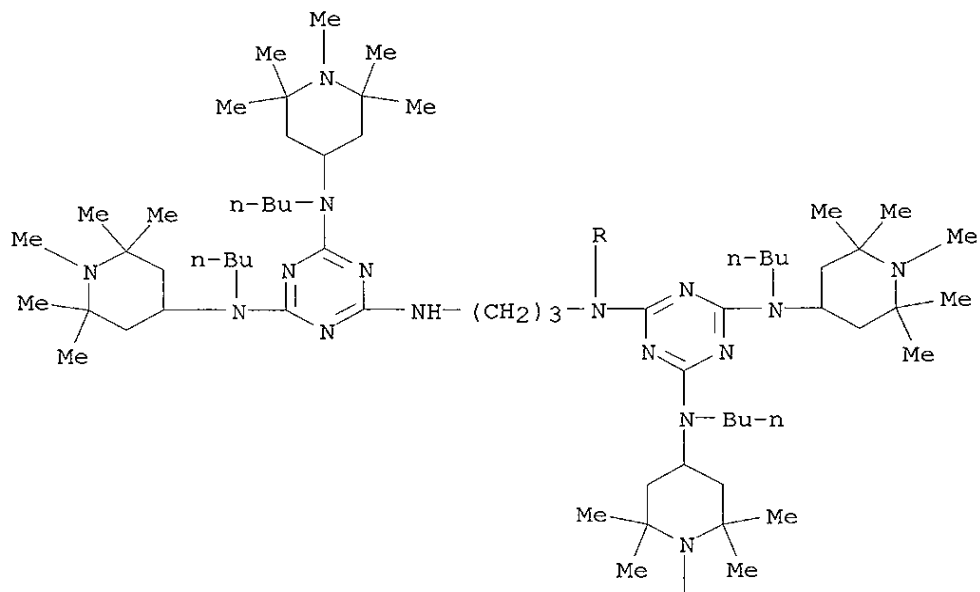
CN Poly[[6-[(1,1,3,3-tetramethylbutyl)amino]-1,3,5-triazine-2,4-diyl][(2,2,6,6-tetramethyl-4-piperidinyl)imino]-1,6-hexanediyl[(2,2,6,6-tetramethyl-4-piperidinyl)imino]] (9CI) (CA INDEX NAME)



RN 106990-43-6 HCAPLUS

CN 1,3,5-Triazine-2,4,6-triamine, N,N'''-1,2-ethanediylbis[N-[3-[[4,6-bis[butyl(1,2,2,6,6-pentamethyl-4-piperidinyl)amino]-1,3,5-triazin-2-yl]amino]propyl]-N',N''-dibutyl-N',N''-bis(1,2,2,6,6-pentamethyl-4-piperidinyl)]- (9CI) (CA INDEX NAME)

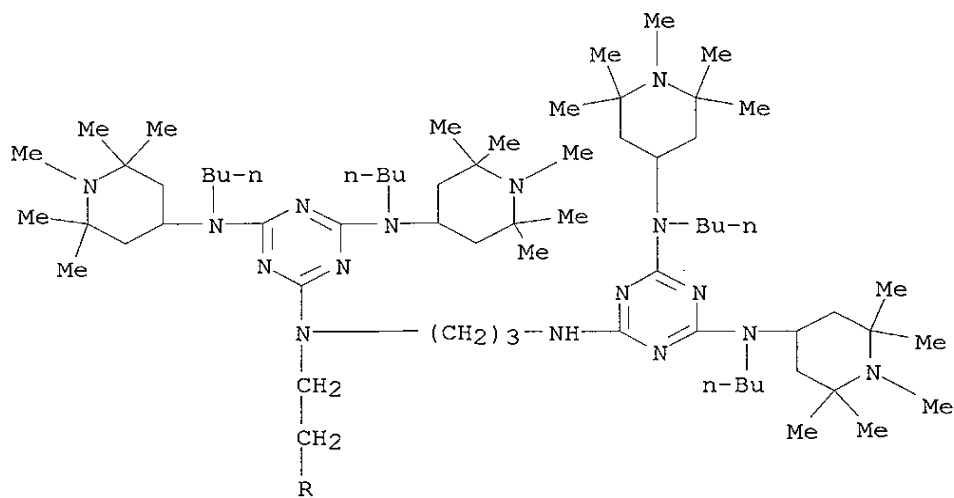
PAGE 1-A



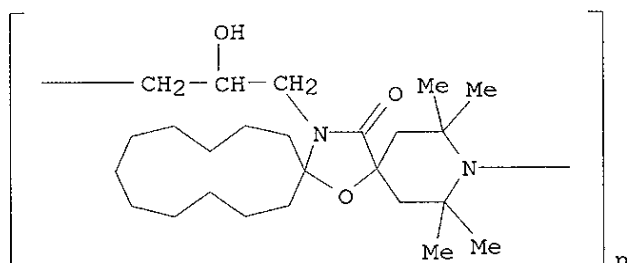
PAGE 2-A



PAGE 3-A



RN 178261-60-4 HCAPLUS
 CN Poly[(2,2,4,4-tetramethyl-21-oxo-7-oxa-3,20-diazadispiro[5.1.11.2]heneicosane-3,20-diyl)(2-hydroxy-1,3-propanediyl)] (9CI) (CA INDEX NAME)



L61 ANSWER 5 OF 14 HCAPLUS COPYRIGHT 2003 ACS on STN
 AN 2001:800948 HCAPLUS
 DN 136:86438
 TI New generation of long-term stabilizers for polyolefins
 AU Cangelosi, Frank; Davis, Leonard; Samuels, Sari-Beth
 CS Cytec Industries, Inc., Stamford, CT, 06904-0060, USA
 SO Journal of Vinyl & Additive Technology (2001), 7(3), 123-133
 CODEN: JVATF4; ISSN: 1083-5601
 PB Society of Plastics Engineers
 DT Journal
 LA English
 CC 37-2 (Plastics Manufacture and Processing)
 AB The benefits of light stabilizers, Cyasorb UV-4611 and Cyasorb UV-6435, for polyethylenes (HDPE and LLDPE and LLDPE hexene copolymer), polypropylene (PP), and other resins are outlined. Tensile test data demonstrate that when used with a base sensitive antioxidant package, UV-4611 will exhibit superior discoloration resistance to either UV-3346 or UV-944 in LLDPE. For HDPE samples, after 8000 h of exposure, the sample contg. UV-4611 still retained 74% of its initial elongation; while the sample contg. UV-783 failed after 3120 h. The PP formulation contg. UV-6435 exhibited significantly higher tensile strength retention than the formulation contg. UV-3346; after actual Florida exposure for four years, samples contg. UV-6435 outperformed samples contg. WV-3346, UV-944 and UV-783. Color and gloss measurements of all samples also demonstrate superior performance of the light stabilizers.
 ST **hindered amine mixt** triazine UV stabilizer
 polyolefin; antioxidant combination UV stabilizer polyolefin tensile testing
 IT Amines, uses
 RL: MOA (Modifier or additive use); USES (Uses)
 (hindered; long-term UV stabilizers based on mixts. of hindered amines and triazines for polyolefins)
 IT Antioxidants
 Elongation, mechanical
 Luster
 Tensile strength
 UV stabilizers
 (long-term UV stabilizers based on mixts. of hindered amines and triazines for polyolefins)
 IT Linear low density polyethylenes

- RL: PRP (Properties)
(long-term UV stabilizers based on mixts. of hindered amines and triazines for polyolefins)
- IT 6683-19-8, Cyanox 2110
RL: MOA (Modifier or additive use); PRP (Properties); USES (Uses)
(Cyanox 2110, mixts. with UV-1164, stabilizer; long-term UV stabilizers based on mixts. of hindered amines and triazines for polyolefins)
- IT 31570-04-4, Tris(2,4-di-tert-butylphenyl) phosphite
RL: MOA (Modifier or additive use); PRP (Properties); USES (Uses)
(Cyanox 2704, mixts. with UV-1164, stabilizer; long-term UV stabilizers based on mixts. of hindered amines and triazines for polyolefins)
- IT 387337-51-1, Cyasorb UV 4611 387337-52-2, Cyasorb UV 6435
RL: MOA (Modifier or additive use); PRP (Properties); USES (Uses)
(UV stabilizer; long-term UV stabilizers based on mixts. of hindered amines and triazines for polyolefins)
- IT 40601-76-1, Tris(4-tert-butyl-2,6-dimethyl-3-hydroxybenzyl) isocyanurate 220246-19-5, Cyanox 2777
RL: MOA (Modifier or additive use); USES (Uses)
(antioxidant; long-term UV stabilizers based on mixts. of hindered amines and triazines for polyolefins)
- IT 88117-78-6, Ethene-hexene copolymer
RL: PRP (Properties)
(linear low-d. and high-d.; long-term UV stabilizers based on mixts. of hindered amines and triazines for polyolefins)
- IT 70198-29-7, Tinuvin 622 71878-19-8, Chimassorb 944 195300-91-5, Chimassorb 2020 205132-52-1, Tinuvin 783
RL: MOA (Modifier or additive use); USES (Uses)
(long-term UV stabilizers based on mixts. of hindered amines and triazines for polyolefins)
- IT 557-05-1, Zinc stearate
RL: MOA (Modifier or additive use); PRP (Properties); USES (Uses)
(long-term UV stabilizers based on mixts. of hindered amines and triazines for polyolefins)
- IT 9003-07-0, Polypropylene
RL: PRP (Properties)
(long-term UV stabilizers based on mixts. of hindered amines and triazines for polyolefins)
- IT 90751-07-8, Cyasorb UV-3346
RL: MOA (Modifier or additive use); PRP (Properties); USES (Uses)
(mixts. with UV-1164 and UV-3529, stabilizer; long-term UV stabilizers based on mixts. of hindered amines and triazines for polyolefins)
- IT 145849-89-4, Cyasorb UV-3529
RL: MOA (Modifier or additive use); PRP (Properties); USES (Uses)
(mixts. with UV-1164, stabilizer; long-term UV stabilizers based on mixts. of hindered amines and triazines for polyolefins)
- IT 2725-22-6, Cyasorb UV 1164
RL: MOA (Modifier or additive use); PRP (Properties); USES (Uses)
(mixts. with UV-3346, stabilizer; long-term UV stabilizers based on mixts. of hindered amines and triazines for polyolefins)

RE.CNT 15 THERE ARE 15 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

- (1) Bauer, D; Polym Degrad Stab 1990, V28(2), P115 HCAPLUS
- (2) Billingham, N; Polym Degrad Stab 1991, V31(1), P23 HCAPLUS
- (3) Cytec Industries; unpublished work
- (4) Gijsman, P; Polym Degrad Stab 1993, V39, P225 HCAPLUS
- (5) Gugumus, F; Oxidation Inhibition of Organic 1990, V2
- (6) Gugumus, F; Polym Degrad Stab 1991, V34, P205 HCAPLUS

- (7) Klemchuk, P; Makromol Chem Macromol Symp 1989, V28, P117 HCAPLUS
 - (8) Klemchuk, P; Polym Degrad Stab 1990, V27, P65 HCAPLUS
 - (9) Kurumada, T; J Polym Sci Polym Chem Ed 1984, V22(1), P277 HCAPLUS
 - (10) Malik, J; Polym Degrad Stab 1992, V35(2), P125 HCAPLUS
 - (11) Malik, J; Polym Degrad Stab 1992, V35(1), P61 HCAPLUS
 - (12) Malik, J; Polym Degrad Stab 1995, V47(1), P1 HCAPLUS
 - (13) Neri, C; Stabilization of Polymers by Hindered Amines International Conference on the Advances in Stabilization and Degradation of Polymers 1991
 - (14) Samuels, S; Polyolefins XI, International Conference 1999, P521 HCAPLUS
 - (15) Sedlar, J; Chapter 1 in Oxidation Inhibition of Organic Materials 1990, V2
- IT 387337-51-1, Cyasorb UV 4611 387337-52-2, Cyasorb UV

RL: MOA (Modifier or additive use); PRP (Properties); USES (Uses)
(UV stabilizer; long-term UV stabilizers based on mixts. of hindered
amines and triazines for polyolefins)

RN 387337-51-1 HCAPLUS

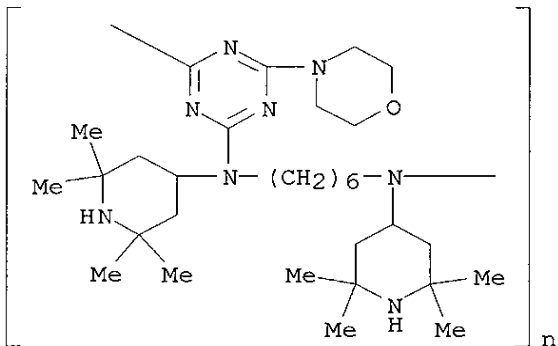
CN Phenol, 2-[4,6-bis(2,4-dimethylphenyl)-1,3,5-triazin-2-yl]-5-(octyloxy)-, mixt. with poly[[6-(4-morpholinyl)-1,3,5-triazine-2,4-diyl][(2,2,6,6-tetramethyl-4-piperidiny)imino]-1,6-hexanediyl[(2,2,6,6-tetramethyl-4-piperidiny)imino]] (9CI) (CA INDEX NAME)

CM 1

CRN 90751-07-8

$$\text{CMF} \quad (\text{C}_{31} \text{H}_{56} \text{N}_8 \text{O})_n$$

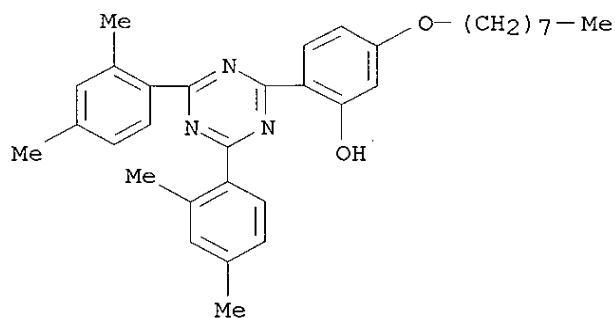
CCI PMS



CM 2

CRN 2725-22-6

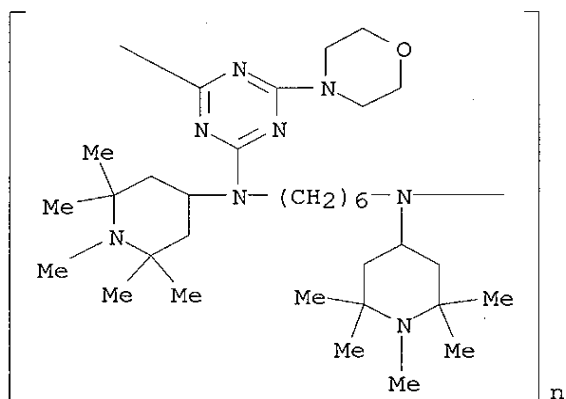
CMF C33 H39 N3 O2



RN 387337-52-2 HCAPLUS
 CN Phenol, 2-[4,6-bis(2,4-dimethylphenyl)-1,3,5-triazin-2-yl]-5-(octyloxy)-, mixt. with poly[[6-(4-morpholinyl)-1,3,5-triazine-2,4-diyl][(1,2,2,6,6-pentamethyl-4-piperidinyl)imino]-1,6-hexanediyl[(1,2,2,6,6-pentamethyl-4-piperidinyl)imino]] (9CI) (CA INDEX NAME)

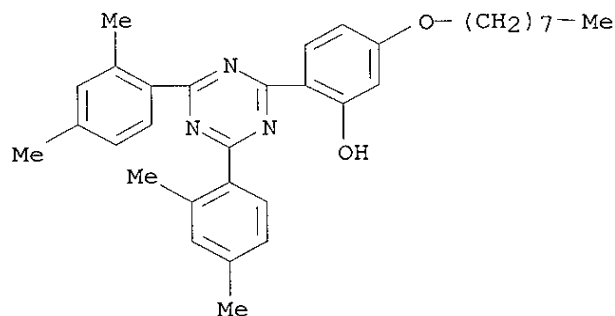
CM 1

CRN 145849-89-4
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 CCI PMS

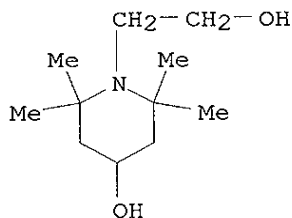


CM 2

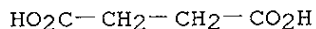
CRN 2725-22-6
 CMF C33 H39 N3 O2



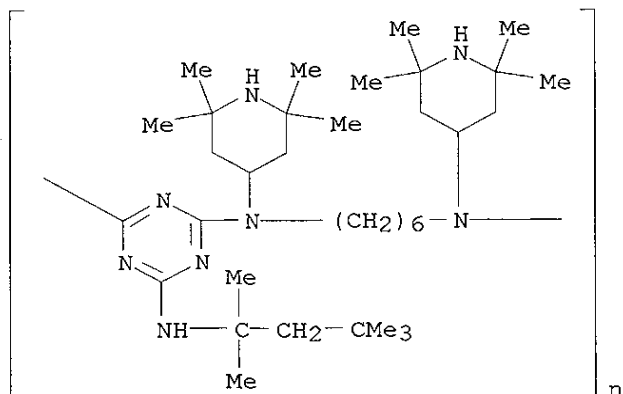
IT 70198-29-7, Tinuvin 622 71878-19-8, Chimassorb 944
 195300-91-5, Chimassorb 2020
 RL: MOA (Modifier or additive use); USES (Uses)
 (long-term UV stabilizers based on mixts. of hindered amines and
 triazines for polyolefins)
 RN 70198-29-7 HCAPLUS
 CN Butanedioic acid, polymer with 4-hydroxy-2,2,6,6-tetramethyl-1-
 piperidineethanol (9CI) (CA INDEX NAME)
 CM 1
 CRN 52722-86-8
 CMF C11 H23 N O2



CM 2
 CRN 110-15-6
 CMF C4 H6 O4

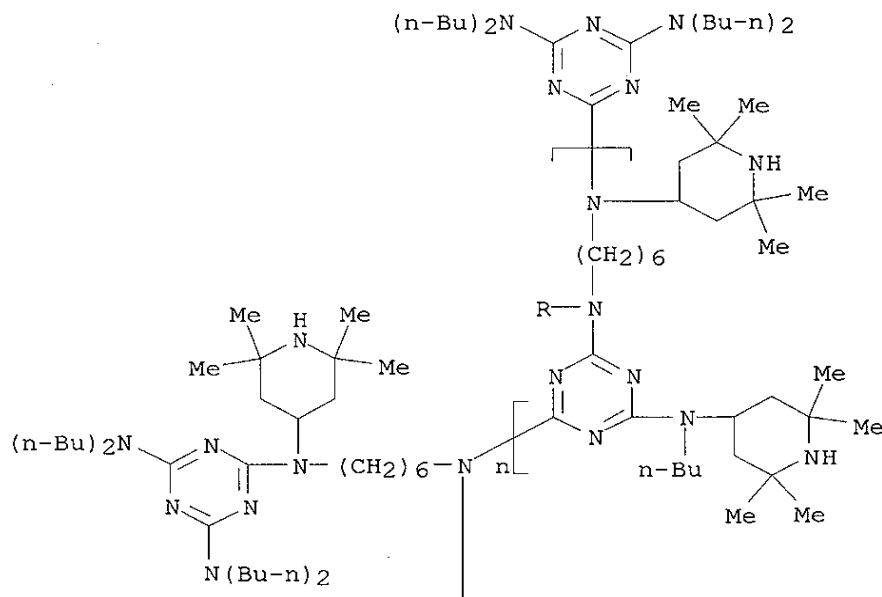


RN 71878-19-8 HCAPLUS
 CN Poly[[6-[(1,1,3,3-tetramethylbutyl)amino]-1,3,5-triazine-2,4-
 diyl][(2,2,6,6-tetramethyl-4-piperidinyl)imino]-1,6-hexanediyl[(2,2,6,6-
 tetramethyl-4-piperidinyl)imino]] (9CI) (CA INDEX NAME)

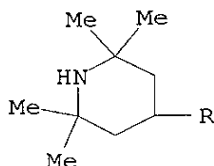
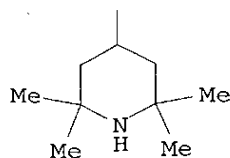


RN 195300-91-5 HCAPLUS
 CN Poly[[6-[(butyl (2,2,6,6-tetramethyl-4-piperidinyl) amino)-1,3,5-triazine-2,4-diyl] [(2,2,6,6-tetramethyl-4-piperidinyl) imino]-1,6-hexanediyl [(2,2,6,6-tetramethyl-4-piperidinyl) imino]], .alpha.-[[6-[[4,6-bis(dibutylamino)-1,3,5-triazin-2-yl] (2,2,6,6-tetramethyl-4-piperidinyl) amino] hexyl] (2,2,6,6-tetramethyl-4-piperidinyl) amino]-.omega.-[4,6-bis(dibutylamino)-1,3,5-triazin-2-yl]- (9CI) (CA INDEX NAME)

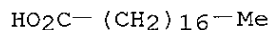
PAGE 1-A



PAGE 2-A

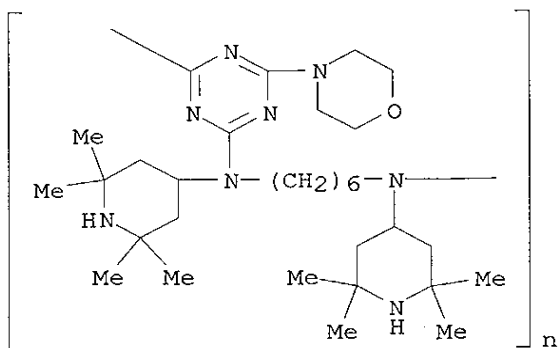


IT 557-05-1, Zinc stearate
 RL: MOA (Modifier or additive use); PRP (Properties); USES (Uses)
 (long-term UV stabilizers based on mixts. of hindered amines and triazines for polyolefins)
 RN 557-05-1 HCAPLUS
 CN Octadecanoic acid, zinc salt (9CI) (CA INDEX NAME)

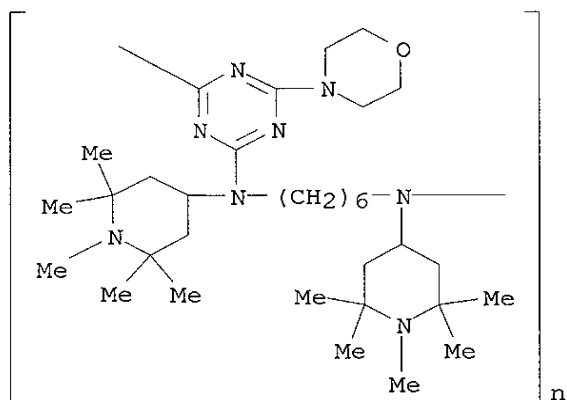


● 1/2 Zn

IT 90751-07-8, Cyasorb UV-3346
 RL: MOA (Modifier or additive use); PRP (Properties); USES (Uses)
 (mixts. with UV-1164 and UV-3529, stabilizer; long-term UV stabilizers based on mixts. of hindered amines and triazines for polyolefins)
 RN 90751-07-8 HCAPLUS
 CN Poly[[6-(4-morpholinyl)-1,3,5-triazine-2,4-diyl][(2,2,6,6-tetramethyl-4-piperidiny)imino]-1,6-hexanediyl[(2,2,6,6-tetramethyl-4-piperidiny)imino]] (9CI) (CA INDEX NAME)



IT 145849-89-4, Cyasorb UV-3529
 RL: MOA (Modifier or additive use); PRP (Properties); USES (Uses)
 (mixts. with UV-1164, stabilizer; long-term UV stabilizers based on
 mixts. of hindered amines and triazines for polyolefins)
 RN 145849-89-4 HCAPLUS
 CN Poly[[6-(4-morpholinyl)-1,3,5-triazine-2,4-diyl][(1,2,2,6,6-pentamethyl-4-
 piperidinyl)imino]-1,6-hexanediyl[(1,2,2,6,6-pentamethyl-4-
 piperidinyl)imino]] (9CI) (CA INDEX NAME)



L61 ANSWER 6 OF 14 HCAPLUS COPYRIGHT 2003 ACS on STN
 AN 2000:19370 HCAPLUS
 DN 132:50741
 TI Propylene polymer compositions with good urine discoloration resistance
 and toilet urinals using them
 IN Nawata, Teruhiko; Matsumoto, Yoshifumi
 PA Tokuyama Corp., Japan
 SO Jpn. Kokai Tokkyo Koho, 9 pp.
 CODEN: JKXXAF
 DT Patent
 LA Japanese
 IC ICM C08L023-10
 ICS A47K013-30; C08K003-22; C08K003-30; C08K005-34
 CC 37-6 (Plastics Manufacture and Processing)
 Section cross-reference(s): 38

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2000001580	A2	20000107	JP 1998-167584	19980615
PRAI	JP 1998-167584		19980615		

AB Title compns. contain propylene polymers 100, .gtoreq.1 white pigments
 selected from TiO₂, ZnO, and ZnS 0.2-10, **hindered**
amines with mol. wt. .gtoreq.1500 0.02-2, and phenol antioxidants
 .ltoreq.0.02 part. Thus, isotactic polypropylene, TiO₂, and Chimassorb
 944FL (hindered amine with mol. wt. 3600) were melt kneaded, pelletized,
 and injection molded to give a test piece showing good heat and weather
 resistance.
 ST propylene polymer urine discoloration resistance urinal; hindered amine
 antioxidant propylene polymer toilet urinal

IT Polyesters, uses
 RL: MOA (Modifier or additive use); USES (Uses)
 (antioxidants; propylene polymer compns. with good urine discoloration resistance for toilet urinals)

IT Antioxidants
 (hindered amines; propylene polymer compns. with good urine discoloration resistance for toilet urinals)

IT Amines, uses
 RL: MOA (Modifier or additive use); USES (Uses)
 (hindered, antioxidants; propylene polymer compns. with good urine discoloration resistance for toilet urinals)

IT Discoloration prevention
 Heat-resistant materials
 (propylene polymer compns. with good urine discoloration resistance for toilet urinals)

IT Toilets
 (urinals; propylene polymer compns. with good urine discoloration resistance for toilet urinals)

IT Pigments, nonbiological
 (white; propylene polymer compns. with good urine discoloration resistance for toilet urinals)

IT 6683-19-8
 RL: MOA (Modifier or additive use); USES (Uses)
 (antioxidants, content-controlled; propylene polymer compns. with good urine discoloration resistance for toilet urinals)

IT 65447-77-0, Dimethyl succinate-1-(2-hydroxyethyl)-4-hydroxy-2,2,6,6-tetramethylpiperidine copolymer 71878-19-8, Chimassorb 944FL
 RL: MOA (Modifier or additive use); USES (Uses)
 (antioxidants; propylene polymer compns. with good urine discoloration resistance for toilet urinals)

IT 25085-53-4, Isotactic polypropylene
 RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
 (propylene polymer compns. with good urine discoloration resistance for toilet urinals)

IT 1314-13-2, Zinc oxide, uses 1314-98-3, Sachtolith HD-S, uses 13463-67-7, Titanium oxide, uses
 RL: MOA (Modifier or additive use); USES (Uses)
 (white pigments; propylene polymer compns. with good urine discoloration resistance for toilet urinals)

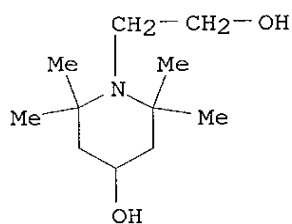
IT 65447-77-0, Dimethyl succinate-1-(2-hydroxyethyl)-4-hydroxy-2,2,6,6-tetramethylpiperidine copolymer 71878-19-8, Chimassorb 944FL
 RL: MOA (Modifier or additive use); USES (Uses)
 (antioxidants; propylene polymer compns. with good urine discoloration resistance for toilet urinals)

RN 65447-77-0 HCAPLUS
 CN Butanedioic acid, dimethyl ester, polymer with 4-hydroxy-2,2,6,6-tetramethyl-1-piperidineethanol (9CI) (CA INDEX NAME)

CM 1

CRN 52722-86-8

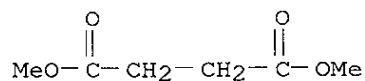
CMF C11 H23 N O2



CM 2

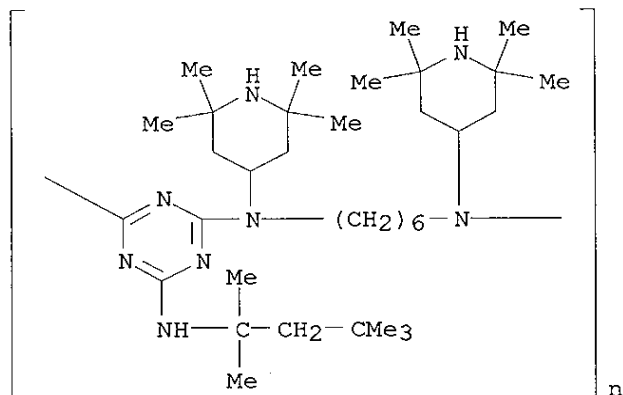
CRN 106-65-0

CMF C6 H10 O4



RN 71878-19-8 HCAPLUS

CN Poly[[6-[(1,1,3,3-tetramethylbutyl)amino]-1,3,5-triazine-2,4-diyl][(2,2,6,6-tetramethyl-4-piperidinyloxy)imino]-1,6-hexanediyl[(2,2,6,6-tetramethyl-4-piperidinyloxy)imino]] (9CI) (CA INDEX NAME)



L61 ANSWER 7 OF 14 HCAPLUS COPYRIGHT 2003 ACS on STN

AN 1999:413026 HCAPLUS

DN 131:74490

TI Stabilizing mixtures containing hindered amines and combinations of 2 salts of calcium, magnesium and/or zinc for polyolefins

IN Gugumus, Francois

PA Ciba-Geigy A.-G., Switz.

SO Ger. Offen., 50 pp.

CODEN: GWXXBX

DT Patent

KATHLEEN FULLER EIC 1700/PARKER LAW 308-4290

LA German
IC ICM C08K013-02
ICS C08K005-3432; C08K005-3462; C08L023-02; C08J003-20
CC 37-6 (Plastics Manufacture and Processing)
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 19859194	A1	19990624	DE 1998-19859194	19981221
	US 2002016390	A1	20020207	US 1998-211198	19981214
	GB 2332677	A1	19990630	GB 1998-27565	19981216
	GB 2332677	B2	20010718		
	GB 2347427	A1	20000906	GB 2000-14233	19981216
	GB 2347427	B2	20010718		
	ES 2154577	A1	20010401	ES 1998-2651	19981221
	ES 2154577	B1	20011201		
	FR 2772774	A1	19990625	FR 1998-16203	19981222
	JP 11255956	A2	19990921	JP 1998-364648	19981222
	IT 1304794	B1	20010329	IT 1998-MI2777	19981222
	NL 1010891	A1	19990624	NL 1998-1010891	19981223
	NL 1010891	C2	19990802		
	BE 1012828	A5	20010403	BE 1998-928	19981223
	US 2003013785	A1	20030116	US 2002-164812	20020607
PRAI	EP 1997-811019	A	19971223		
	US 1998-211198	A1	19981214		
	GB 1998-27565	A3	19981216		
AB	Mixts. for stabilizing of polyolefins against degrdn. by heat, light and O contain (A) hindered amines, (B) (in)org. salts of Ca, and (C) (in)org. salts of Zn or Mg , such that when component (B) is Ca stearate, then component (C) is Mg carbonate hydroxide, Zn carbonate hydroxide (I), or dolomite. A typical light-stabilized plate contained 100 parts polypropylene, 0.05 parts pentaerythrityl tetrakis[3-(3,5-di-tert-butylphenyl)propionate], 0.05 parts tris(2,4-di-tert-butylphenyl) phosphite, 0.1% Tinuvin 622, 0.05% CaO, and 0.05% I.				
ST	hindered amine calcium zinc magnesium salt stabilizer polyolefin; polypropylene hindered amine calcium zinc salt light stabilizer				
IT	Amines, uses RL: MOA (Modifier or additive use); USES (Uses) (hindered; stabilizing mixts. contg. hindered amines and combinations of 2 salts of magnesium and(or) zinc for polyolefins)				
IT	Polyesters, uses RL: MOA (Modifier or additive use); USES (Uses) (polyamine-; stabilizing mixts. contg. hindered amines and combinations of 2 salts of magnesium and(or) zinc for polyolefins)				
IT	Amines, uses RL: MOA (Modifier or additive use); USES (Uses) (polyamines, nonpolymeric; stabilizing mixts. contg. hindered amines and combinations of 2 salts of magnesium and(or) zinc for polyolefins)				
IT	Polyamines RL: MOA (Modifier or additive use); USES (Uses) (polyester-; stabilizing mixts. contg. hindered amines and combinations of 2 salts of magnesium and(or) zinc for polyolefins)				
IT	Antioxidants				

Heat stabilizers
 Light stabilizers
 (stabilizing mixts. contg. hindered amines and combinations of 2 salts
 of **magnesium** and(or) **zinc** for polyolefins)

IT Polyamines
 RL: MOA (Modifier or additive use); USES (Uses)
 (stabilizing mixts. contg. hindered amines and combinations of 2 salts
 of **magnesium** and(or) **zinc** for polyolefins)

IT Polyolefins
 RL: POF (Polymer in formulation); USES (Uses)
 (stabilizing mixts. contg. hindered amines and combinations of 2 salts
 of **magnesium** and(or) **zinc** for polyolefins)

IT Polysiloxanes, uses
 RL: MOA (Modifier or additive use); USES (Uses)
 (tetramethylpiperidinyloxypropyl-contg.; stabilizing mixts. contg.
 hindered amines and combinations of 2 salts of **magnesium**
 and(or) **zinc** for polyolefins)

IT 130277-45-1, Good-rite UV 3159
 RL: MOA (Modifier or additive use); USES (Uses)
 (Good-rite UV 3159; stabilizing mixts. contg. hindered amines and
 combinations of 2 salts of **magnesium** and(or) **zinc**
 for polyolefins)

IT 237081-56-0
 RL: MOA (Modifier or additive use); USES (Uses)
 (Hostavin N 30; stabilizing mixts. contg. hindered amines and
 combinations of 2 salts of **magnesium** and(or) **zinc**
 for polyolefins)

IT 64338-16-5
 RL: MOA (Modifier or additive use); USES (Uses)
 (Hostavin N20; stabilizing mixts. contg. hindered amines and
 combinations of 2 salts of **magnesium** and(or) **zinc**
 for polyolefins)

IT 79720-19-7
 RL: MOA (Modifier or additive use); USES (Uses)
 (UV absorb HA 88; stabilizing mixts. contg. hindered amines and
 combinations of 2 salts of **magnesium** and(or) **zinc**
 for polyolefins)

IT 70198-29-7, Tinuvin 622
 RL: MOA (Modifier or additive use); USES (Uses)
 (stabilizing mixts. contg. hindered amines and combinations of 2 salts
 of calcium, **magnesium** and(or) **zinc** for polyolefins)

IT 9003-07-0, Polypropylene
 RL: POF (Polymer in formulation); USES (Uses)
 (stabilizing mixts. contg. hindered amines and combinations of 2 salts
 of calcium, **magnesium** and(or) **zinc** for polyolefins)

IT 142-72-3, **Magnesium** acetate 557-04-0,
Magnesium stearate 557-05-1, **Zinc** stearate
 557-34-6, **Zinc** acetate 814-80-2, Calcium lactate 1305-62-0,
 Calcium hydroxide, uses 1305-78-8, Calcium oxide, uses 1309-42-8,
Magnesium hydroxide 1309-48-4, **Magnesium** oxide, uses
 1314-13-2, **Zinc** oxide, uses 1592-23-0, Calcium stearate
 2452-01-9, **Zinc** laurate 4040-48-6, **Magnesium** laurate
 4508-49-0, Calcium stearoyllactate 11097-59-9, DHT-4A
 12125-28-9, **Magnesium** carbonate hydroxide 14024-56-7,
Magnesium acetylacetonate 14024-63-6, **Zinc**
 acetylacetonate 16389-88-1, Microdol Super, uses 20427-58-1,
Zinc hydroxide 36177-92-1D, N-Butyl-2,2,6,6-tetramethyl-
 4-piperidinamine, reaction products with cyanuric chloride-

ethanediylbis(propanediamine) copolymer **41556-26-7**, Tinuvin 765
52829-07-9, Tinuvin 770 **64022-61-3**, Mark LA 57
71878-19-8, Chimassorb 944 **91788-83-9**, Mark LA 52
96204-36-3, Good-rite 3150 **147783-69-5**, Sanduvor PR 31
150607-22-0, **Zinc** carbonate hydroxide **164648-93-5**,
Uvasil 299 174587-71-4D, 1,3-Propanediamine, N,N''-1,2-ethanediylbis-,
polymer with 2,4,6-trichloro-1,3,5-triazine, reaction products with
butyltetramethylpiperidinamine

RL: MOA (Modifier or additive use); USES (Uses)
(stabilizing mixts. contg. hindered amines and combinations of 2 salts
of **magnesium** and(or) **zinc** for polyolefins)

IT 9002-88-4, Polyethylene

RL: POF (Polymer in formulation); USES (Uses)
(stabilizing mixts. contg. hindered amines and combinations of 2 salts
of **magnesium** and(or) **zinc** for polyolefins)

IT **237081-56-0**

RL: MOA (Modifier or additive use); USES (Uses)
(Hostavin N 30; stabilizing mixts. contg. hindered amines and
combinations of 2 salts of **magnesium** and(or) **zinc**
for polyolefins)

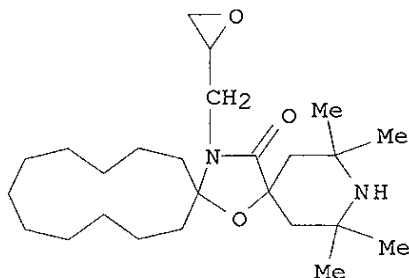
RN 237081-56-0 HCAPLUS

CN 7-Oxa-3,20-diazadispiro[5.1.11.2]heneicosan-21-one, 2,2,4,4-tetramethyl-20-
(oxiranylmethyl)-, polymer with (chloromethyl)oxirane (9CI) (CA INDEX
NAME)

CM 1

CRN 78276-66-1

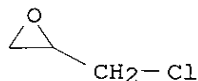
CMF C25 H44 N2 O3



CM 2

CRN 106-89-8

CMF C3 H5 Cl O



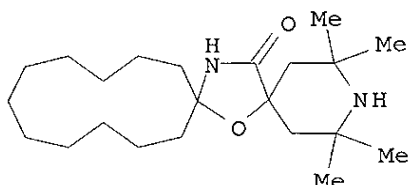
IT **64338-16-5**

RL: MOA (Modifier or additive use); USES (Uses)

(Hostavin N20; stabilizing mixts. contg. hindered amines and combinations of 2 salts of **magnesium** and(or) **zinc** for polyolefins)

RN 64338-16-5 HCAPLUS

CN 7-Oxa-3,20-diazadispiro[5.1.11.2]heneicosan-21-one, 2,2,4,4-tetramethyl-
(9CI) (CA INDEX NAME)

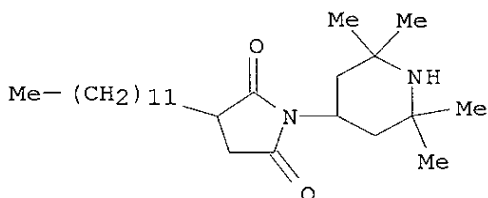


IT 79720-19-7

RL: MOA (Modifier or additive use); USES (Uses)
(UV absorb HA 88; stabilizing mixts. contg. hindered amines and combinations of 2 salts of **magnesium** and(or) **zinc** for polyolefins)

RN 79720-19-7 HCAPLUS

CN 2,5-Pyrrolidinedione, 3-dodecyl-1-(2,2,6,6-tetramethyl-4-piperidinyl)-
(9CI) (CA INDEX NAME)



IT 70198-29-7, Tinuvin 622

RL: MOA (Modifier or additive use); USES (Uses)
(stabilizing mixts. contg. hindered amines and combinations of 2 salts of calcium, **magnesium** and(or) **zinc** for polyolefins)

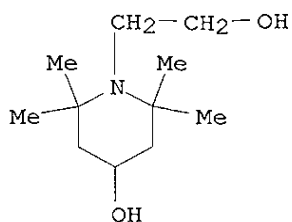
RN 70198-29-7 HCAPLUS

CN Butanedioic acid, polymer with 4-hydroxy-2,2,6,6-tetramethyl-1-piperidineethanol (9CI) (CA INDEX NAME)

CM 1

CRN 52722-86-8

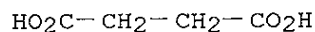
CMF C11 H23 N O2



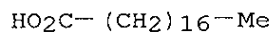
CM 2

CRN 110-15-6

CMF C4 H6 O4

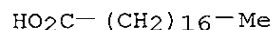


IT 557-04-0, Magnesium stearate 557-05-1,
Zinc stearate 11097-59-9, DHT-4A 36177-92-1D,
N-Butyl-2,2,6,6-tetramethyl-4-piperidinamine, reaction products with
cyanuric chloride-ethanediylbis(propanediamine) copolymer
41556-26-7, Tinuvin 765 52829-07-9, Tinuvin 770
64022-61-3, Mark LA 57 71878-19-8, Chimassorb 944
91788-83-9, Mark LA 52 147783-69-5, Sanduvor PR 31
164648-93-5, Uvasil 299
RL: MOA (Modifier or additive use); USES (Uses)
(stabilizing mixts. contg. hindered amines and combinations of 2 salts
of **magnesium** and(or) **zinc** for polyolefins)
RN 557-04-0 HCAPLUS
CN Octadecanoic acid, magnesium salt (9CI) (CA INDEX NAME)



● 1/2 Mg

RN 557-05-1 HCAPLUS
CN Octadecanoic acid, zinc salt (9CI) (CA INDEX NAME)

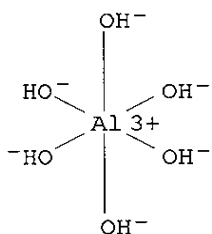


● 1/2 Zn

RN 11097-59-9 HCAPLUS
CN Aluminate (Al(OH)₆3-), (OC-6-11)-, magnesium carbonate hydroxide (2:6:1:4)
(9CI) (CA INDEX NAME)

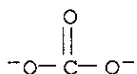
CM 1

CRN 18893-33-9
CMF A1 H6 O6
CCI CCS

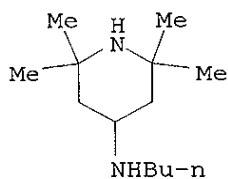


CM 2

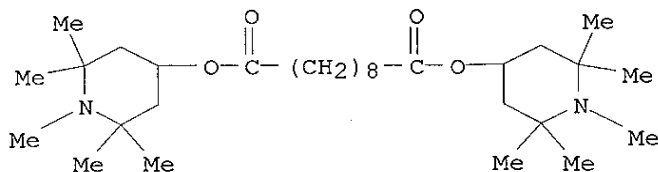
CRN 3812-32-6
CMF C O3



RN 36177-92-1 HCAPLUS
CN 4-Piperidinamine, N-butyl-2,2,6,6-tetramethyl- (9CI) (CA INDEX NAME)



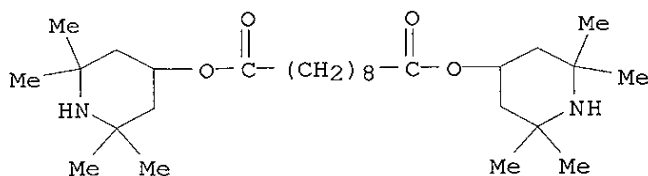
RN 41556-26-7 HCAPLUS
CN Decanedioic acid, bis(1,2,2,6,6-pentamethyl-4-piperidiny) ester (9CI)
(CA INDEX NAME)



RN 52829-07-9 HCAPLUS

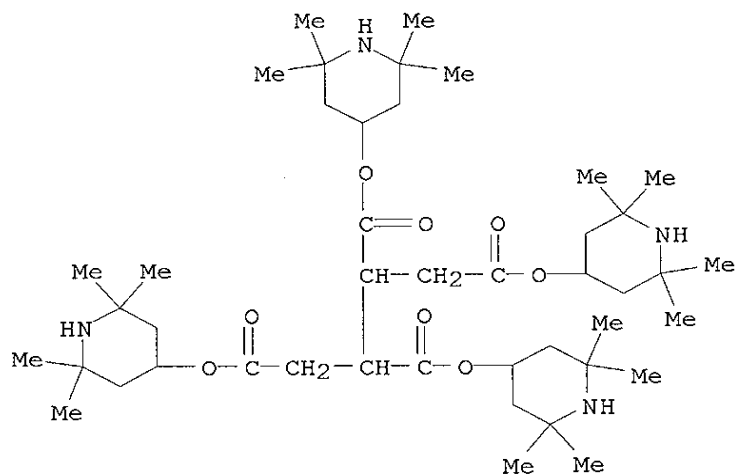
KATHLEEN FULLER EIC 1700/PARKER LAW 308-4290

CN Decanedioic acid, bis(2,2,6,6-tetramethyl-4-piperidinyl) ester (9CI) (CA INDEX NAME)



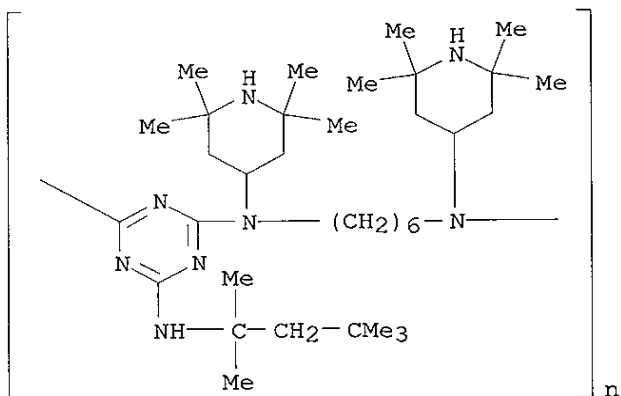
RN 64022-61-3 HCAPLUS

CN 1,2,3,4-Butanetetra-carboxylic acid, tetrakis(2,2,6,6-tetramethyl-4-piperidinyl) ester (9CI) (CA INDEX NAME)

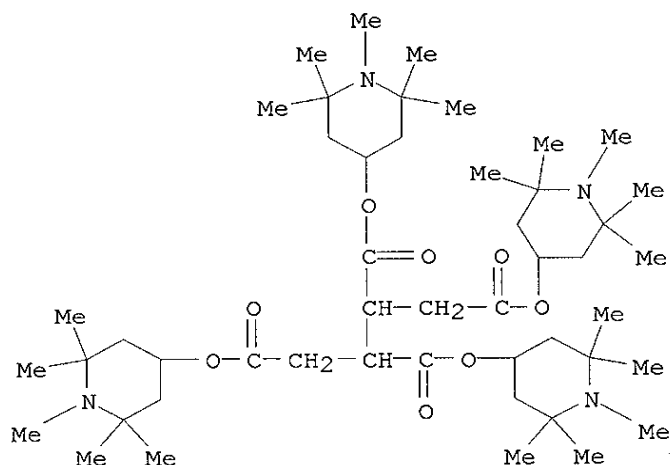


RN 71878-19-8 HCAPLUS

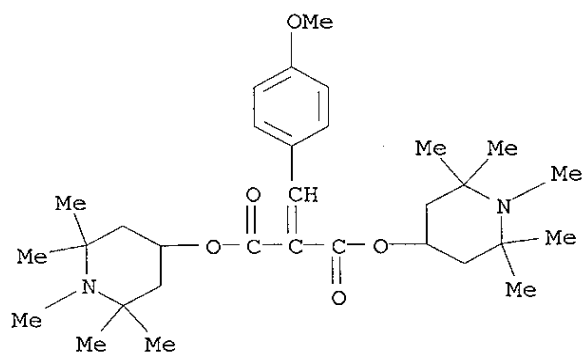
CN Poly[[6-[(1,1,3,3-tetramethylbutyl)amino]-1,3,5-triazine-2,4-diyl][(2,2,6,6-tetramethyl-4-piperidinyl)imino]-1,6-hexanediyl[(2,2,6,6-tetramethyl-4-piperidinyl)imino]] (9CI) (CA INDEX NAME)



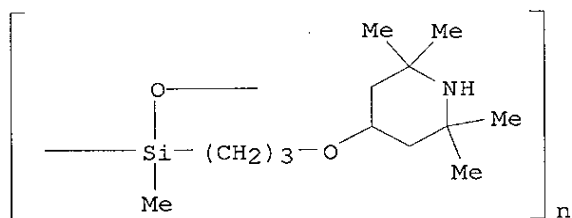
RN 91788-83-9 HCAPLUS
 CN 1,2,3,4-Butanetetracarboxylic acid, tetrakis(1,2,2,6,6-pentamethyl-4-piperidiny) ester (9CI) (CA INDEX NAME)



RN 147783-69-5 HCAPLUS
 CN Propanedioic acid, [(4-methoxyphenyl)methylene]-, bis(1,2,2,6,6-pentamethyl-4-piperidiny) ester (9CI) (CA INDEX NAME)



RN 164648-93-5 HCAPLUS
 CN Poly[oxy[methyl[3-[(2,2,6,6-tetramethyl-4-piperidinyl)oxy]propyl]silylene]
] (9CI) (CA INDEX NAME)



L61 ANSWER 8 OF 14 HCAPLUS COPYRIGHT 2003 ACS on STN
 AN 1999:413024 HCAPLUS
 DN 131:88676
 TI Stabilizing mixtures containing hindered
 amines and metal salts for polyolefins
 IN Gugumus, Francois
 PA Ciba-Geigy A.-G., Switz.
 SO Ger. Offen., 74 pp.
 CODEN: GWXXBX
 DT Patent
 LA German
 IC ICM C09K015-30
 ICS C08L023-02
 CC 37-6 (Plastics Manufacture and Processing)
 FAN.CNT 1

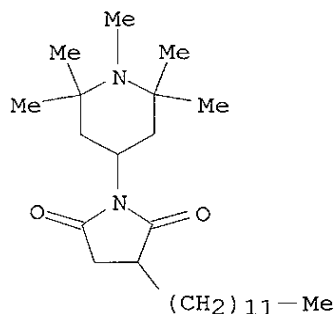
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 19859096	A1	19990624	DE 1998-19859096	19981221
	GB 2332678	A1	19990630	GB 1998-27567	19981216
	GB 2332678	B2	20000927		
	ES 2155364	A1	20010501	ES 1998-2650	19981221
	ES 2155364	B1	20020701		
	FR 2772773	A1	19990625	FR 1998-16204	19981222
	JP 11255957	A2	19990921	JP 1998-376316	19981222
	IT 1304793	B1	20010329	IT 1998-MI2776	19981222
	NL 1010890	A1	19990624	NL 1998-1010890	19981223

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	NL 1010890	C2	19990802		
	BE 1012882	A5	20010508	BE 1998-927	19981223
	US 2002013390	A1	20020131	US 2001-811960	20010319
	US 2003013784	A1	20030116	US 2002-85221	20020228
PRAI	EP 1997-811018	A	19971223		
	US 1998-211197	B1	19981214		
	US 2001-811960	B1	20010319		
OS	MARPAT 131:88676				
AB	Mixts. for stabilizing of polyolefins against degrdn. by heat, light and O contain hindered amines and 2 compds. selected from (in)org. salts of Zn and Mg with the ratio of the 2 latter compds. being (1-10):(1-10), such that the latter 2 compds. are different than ZnO- Zn stearate and ZnO-hydrotalcite combinations. A typical light-stabilized plate contained 100 parts polypropylene, 0.05 parts pentaerythrityl tetrakis[3-(3,5-di-tert-butyl-4-hydroxyphenyl)propionate], 0.05 parts tris(2,4-di-tert-butylphenyl) phosphite, 0.1% Tinuvin 622, 0.1% Microdol Super (dolomite), and 0.05% Mg stearate.				
ST	hindered amine zinc magnesium salt stabilizer polyolefin; polypropylene hindered amine magnesium stearate dolomite light stabilizer				
IT	Fatty acids, uses RL: MOA (Modifier or additive use); USES (Uses) (C15-18, tetramethylpiperidinyll esters, Dastib 845; stabilizing mixts. contg. hindered amines and combinations of 2 salts of magnesium and(or) zinc for polyolefins)				
IT	Amines, uses RL: MOA (Modifier or additive use); USES (Uses) (hindered; stabilizing mixts. contg. hindered amines and combinations of 2 salts of magnesium and(or) zinc for polyolefins)				
IT	Polyesters, uses Polyesters, uses RL: MOA (Modifier or additive use); USES (Uses) (polyamine-; stabilizing mixts. contg. hindered amines and combinations of 2 salts of magnesium and(or) zinc for polyolefins)				
IT	Amines, uses RL: MOA (Modifier or additive use); USES (Uses) (polyamines, nonpolymeric; stabilizing mixts. contg. hindered amines and combinations of 2 salts of magnesium and(or) zinc for polyolefins)				
IT	Polyethers, uses Polyethers, uses RL: MOA (Modifier or additive use); USES (Uses) (polyester-, hindered amine group-contg.; stabilizing mixts. contg. hindered amines and combinations of 2 salts of magnesium and(or) zinc for polyolefins)				
IT	Polyamines Polyamines RL: MOA (Modifier or additive use); USES (Uses) (polyester-; stabilizing mixts. contg. hindered amines and combinations of 2 salts of magnesium and(or) zinc for polyolefins)				
IT	Polyesters, uses Polyesters, uses RL: MOA (Modifier or additive use); USES (Uses) (polyether-, hindered amine group-contg.; stabilizing mixts. contg. hindered amines and combinations of 2 salts of magnesium				

- and(or) **zinc** for polyolefins)
- IT Antioxidants
Heat stabilizers
Light stabilizers
(stabilizing mixts. contg. hindered amines and combinations of 2 salts
of **magnesium** and(or) **zinc** for polyolefins)
- IT Polyamines
RL: MOA (Modifier or additive use); USES (Uses)
(stabilizing mixts. contg. hindered amines and combinations of 2 salts
of **magnesium** and(or) **zinc** for polyolefins)
- IT Polyolefins
RL: POF (Polymer in formulation); USES (Uses)
(stabilizing mixts. contg. hindered amines and combinations of 2 salts
of **magnesium** and(or) **zinc** for polyolefins)
- IT Polysiloxanes, uses
RL: MOA (Modifier or additive use); USES (Uses)
(tetramethylpiperidinyloxypropyl-contg.; stabilizing mixts. contg.
hindered amines and combinations of 2 salts of **magnesium**
and(or) **zinc** for polyolefins)
- IT 96204-36-3
RL: MOA (Modifier or additive use); USES (Uses)
(Goodrite UV 3150; stabilizing mixts. contg. hindered amines and
combinations of 2 salts of **magnesium** and(or) **zinc**
for polyolefins)
- IT 106917-30-0
RL: MOA (Modifier or additive use); USES (Uses)
(Hals Me S 95; stabilizing mixts. contg. hindered amines and
combinations of 2 salts of **magnesium** and(or) **zinc**
for polyolefins)
- IT 79720-19-7
RL: MOA (Modifier or additive use); USES (Uses)
(Hals S 95, Uvasorb HA 88; stabilizing mixts. contg. hindered amines
and combinations of 2 salts of **magnesium** and(or) **zinc**
for polyolefins)
- IT 78301-43-6
RL: MOA (Modifier or additive use); USES (Uses)
(Hostavin H 30; stabilizing mixts. contg. hindered amines and
combinations of 2 salts of **magnesium** and(or) **zinc**
for polyolefins)
- IT 64338-16-5
RL: MOA (Modifier or additive use); USES (Uses)
(Hostavin N20; stabilizing mixts. contg. hindered amines and
combinations of 2 salts of **magnesium** and(or) **zinc**
for polyolefins)
- IT 159102-09-7
RL: MOA (Modifier or additive use); USES (Uses)
(Lichtschtzstoff UV 31; stabilizing mixts. contg. hindered amines and
combinations of 2 salts of **magnesium** and(or) **zinc**
for polyolefins)
- IT 229966-35-2
RL: MOA (Modifier or additive use); USES (Uses)
(Luchem HAB 18; stabilizing mixts. contg. hindered amines and
combinations of 2 salts of **magnesium** and(or) **zinc**
for polyolefins)
- IT 109423-00-9
RL: MOA (Modifier or additive use); USES (Uses)
(Uvinul 4049; stabilizing mixts. contg. hindered amines and
combinations of 2 salts of **magnesium** and(or) **zinc**

- for polyolefins)
 IT 199237-39-3, Uvinul 5050H
 RL: MOA (Modifier or additive use); USES (Uses)
 (Uvinul 5050H; stabilizing mixts. contg. hindered amines and combinations of 2 salts of **magnesium** and(or) **zinc** for polyolefins)
 IT 9002-88-4
 RL: POF (Polymer in formulation); USES (Uses)
 (high-d.; stabilizing mixts. contg. hindered amines and combinations of 2 salts of **magnesium** and(or) **zinc** for polyolefins)
 IT 142-72-3 557-04-0 557-05-1 557-34-6 1309-42-8,
Magnesium hydroxide (**Mg**(OH)2) 1309-48-4,
Magnesium oxide (**MgO**), uses 1314-13-2, **Zinc** oxide (**ZnO**), uses 11097-59-9, DHT 4A 12125-28-9, **Magnesium** carbonate hydroxide 14024-56-7 14024-63-6 16389-88-1, Dolomite (**CaMg**(CO3)2), uses 20427-58-1, **Zinc** hydroxide (**Zn**(OH)2) 36177-92-1D, reaction products with cyanuric chloride-ethanediylbis(propanediamine) copolymer 41556-26-7
 52829-07-9 62782-03-0 64022-61-3
 70198-29-7 71878-19-8 76505-58-3
 85099-51-0 90751-07-8 91788-83-9
 106990-43-6 115055-30-6 124172-53-8
 131290-28-3 147783-69-5 150607-22-0, **Zinc** carbonate hydroxide 164648-93-5 174587-71-4D, reaction products with butyltetramethylpiperidinamine
 RL: MOA (Modifier or additive use); USES (Uses)
 (stabilizing mixts. contg. hindered amines and combinations of 2 salts of **magnesium** and(or) **zinc** for polyolefins)
 IT 9003-07-0
 RL: POF (Polymer in formulation); USES (Uses)
 (stabilizing mixts. contg. hindered amines and combinations of 2 salts of **magnesium** and(or) **zinc** for polyolefins)
 IT 106917-30-0
 RL: MOA (Modifier or additive use); USES (Uses)
 (Hals Me S 95; stabilizing mixts. contg. hindered amines and combinations of 2 salts of **magnesium** and(or) **zinc** for polyolefins)
 RN 106917-30-0 HCAPLUS
 CN 2,5-Pyrrolidinedione, 3-dodecyl-1-(1,2,2,6,6-pentamethyl-4-piperidinyl)-(9CI) (CA INDEX NAME)

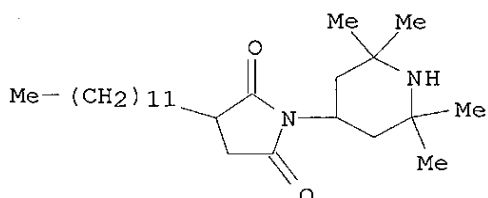


- IT 79720-19-7
 RL: MOA (Modifier or additive use); USES (Uses)

(Hals S 95, Uvasorb HA 88; stabilizing mixts. contg. hindered amines and combinations of 2 salts of **magnesium** and(or) **zinc** for polyolefins)

RN 79720-19-7 HCAPLUS

CN 2,5-Pyrrolidinedione, 3-dodecyl-1-(2,2,6,6-tetramethyl-4-piperidiny)-
(9CI) (CA INDEX NAME)



IT 78301-43-6

RL: MOA (Modifier or additive use); USES (Uses)
(Hostavin H 30; stabilizing mixts. contg. hindered amines and combinations of 2 salts of **magnesium** and(or) **zinc** for polyolefins)

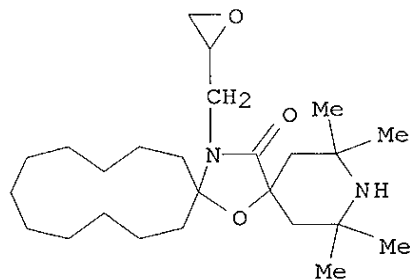
RN 78301-43-6 HCAPLUS

CN 7-Oxa-3,20-diazadispiro[5.1.11.2]heneicosan-21-one, 2,2,4,4-tetramethyl-20-(oxiranylmethyl)-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 78276-66-1

CMF C25 H44 N2 O3

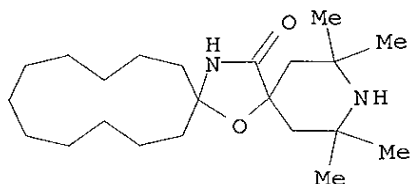


IT 64338-16-5

RL: MOA (Modifier or additive use); USES (Uses)
(Hostavin N20; stabilizing mixts. contg. hindered amines and combinations of 2 salts of **magnesium** and(or) **zinc** for polyolefins)

RN 64338-16-5 HCAPLUS

CN 7-Oxa-3,20-diazadispiro[5.1.11.2]heneicosan-21-one, 2,2,4,4-tetramethyl-
(9CI) (CA INDEX NAME)



IT 159102-09-7

RL: MOA (Modifier or additive use); USES (Uses)
 (Lichtschutzstoff UV 31; stabilizing mixts. contg. hindered amines and
 combinations of 2 salts of **magnesium** and(or) **zinc**
 for polyolefins)

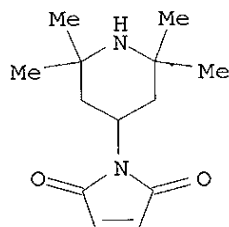
RN 159102-09-7 HCAPLUS

CN 1H-Pyrrole-2,5-dione, 1-octadecyl-, polymer with (1-methylethenyl)benzene
 and 1-(2,2,6,6-tetramethyl-4-piperidinyl)-1H-pyrrole-2,5-dione (9CI) (CA
 INDEX NAME)

CM 1

CRN 84540-25-0

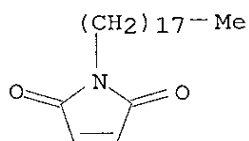
CMF C13 H20 N2 O2



CM 2

CRN 17450-30-5

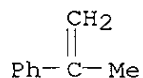
CMF C22 H39 N O2



CM 3

CRN 98-83-9

CMF C9 H10



IT 229966-35-2

RL: MOA (Modifier or additive use); USES (Uses)
(Luchem HAB 18; stabilizing mixts. contg. hindered amines and
combinations of 2 salts of **magnesium** and(or) **zinc**
for polyolefins)

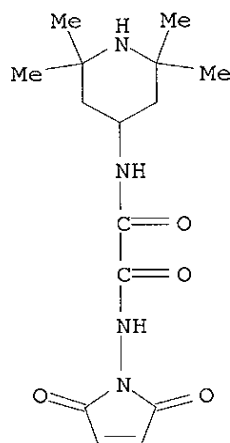
RN 229966-35-2 HCAPLUS

CN Ethanediamide, N-(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)-N'-(2,2,6,6-tetramethyl-4-piperidiny)-, polymer with 1-octadecene (9CI) (CA INDEX NAME)

CM 1

CRN 155526-73-1

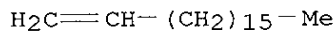
CMF C15 H22 N4 O4



CM 2

CRN 112-88-9

CMF C18 H36



IT 109423-00-9

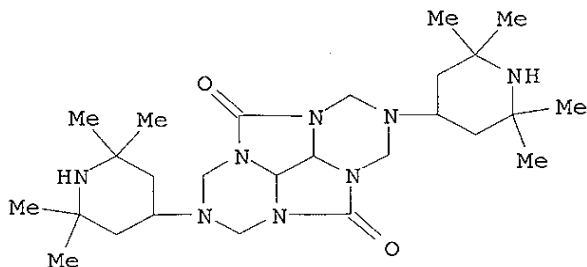
RL: MOA (Modifier or additive use); USES (Uses)
(Uvinul 4049; stabilizing mixts. contg. hindered amines and
combinations of 2 salts of **magnesium** and(or) **zinc**
for polyolefins)

RN 109423-00-9 HCAPLUS

CN 1H,4H,5H,8H-2,3a,4a,6,7a,8a-Hexaazacyclopenta[def]fluorene-4,8-dione,
hexahydro-2,6-bis(2,2,6,6-tetramethyl-4-piperidiny)- (9CI) (CA INDEX NAME)

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NAME)



IT 557-04-0 557-05-1 11097-59-9, DHT 4A
 36177-92-1D, reaction products with cyanuric chloride-
 ethanediylbis(propanediamine) copolymer 41556-26-7
 52829-07-9 62782-03-0 64022-61-3
 70198-29-7 71878-19-8 76505-58-3
 85099-51-0 90751-07-8 91788-83-9
 106990-43-6 115055-30-6 124172-53-8
 131290-28-3 147783-69-5 164648-93-5
 RL: MOA (Modifier or additive use); USES (Uses)
 (stabilizing mixts. contg. hindered amines and combinations of 2 salts
 of **magnesium** and(or) **zinc** for polyolefins)
 RN 557-04-0 HCAPLUS
 CN Octadecanoic acid, magnesium salt (9CI) (CA INDEX NAME)

HO₂C-(CH₂)₁₆-Me

● 1/2 Mg

RN 557-05-1 HCAPLUS
 CN Octadecanoic acid, zinc salt (9CI) (CA INDEX NAME)

HO₂C-(CH₂)₁₆-Me

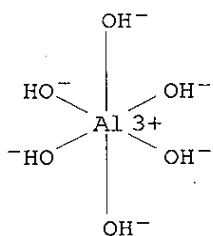
● 1/2 Zn

RN 11097-59-9 HCAPLUS
 CN Aluminate (Al(OH)₆3-), (OC-6-11)-, magnesium carbonate hydroxide (2:6:1:4)
 (9CI) (CA INDEX NAME)

CM 1

CRN 18893-33-9
 CMF Al H6 O6
 CCI CCS

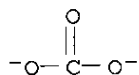
KATHLEEN FULLER EIC 1700/PARKER LAW 308-4290



CM 2

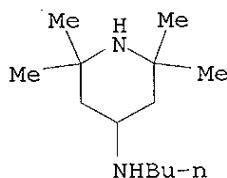
CRN 3812-32-6

CMF C O3



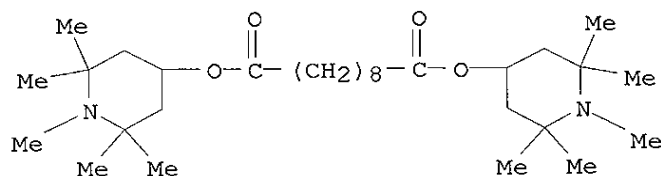
RN 36177-92-1 HCAPLUS

CN 4-Piperidinamine, N-butyl-2,2,6,6-tetramethyl- (9CI) (CA INDEX NAME)



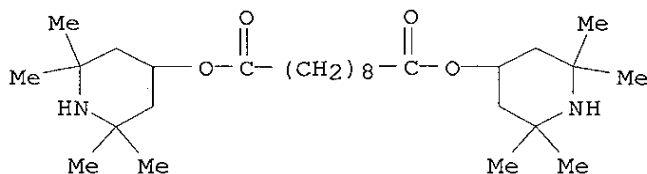
RN 41556-26-7 HCAPLUS

CN Decanedioic acid, bis(1,2,2,6,6-pentamethyl-4-piperidiny) ester (9CI)
(CA INDEX NAME)



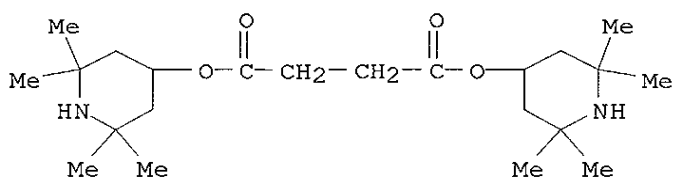
RN 52829-07-9 HCAPLUS

CN Decanedioic acid, bis(2,2,6,6-tetramethyl-4-piperidiny) ester (9CI) (CA INDEX NAME)



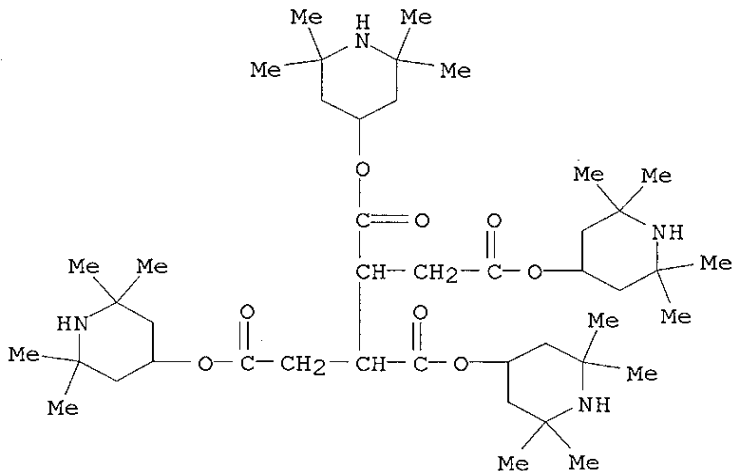
RN 62782-03-0 HCAPLUS

CN Butanedioic acid, bis(2,2,6,6-tetramethyl-4-piperidinyl) ester (9CI) (CA INDEX NAME)



RN 64022-61-3 HCAPLUS

CN 1,2,3,4-Butanetetracarboxylic acid, tetrakis(2,2,6,6-tetramethyl-4-piperidinyl) ester (9CI) (CA INDEX NAME)



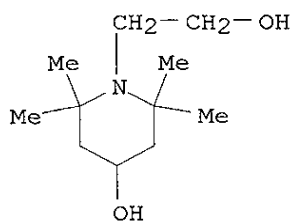
RN 70198-29-7 HCAPLUS

CN Butanedioic acid, polymer with 4-hydroxy-2,2,6,6-tetramethyl-1-piperidineethanol (9CI) (CA INDEX NAME)

CM 1

CRN 52722-86-8

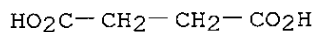
CMF C11 H23 N O2



CM 2

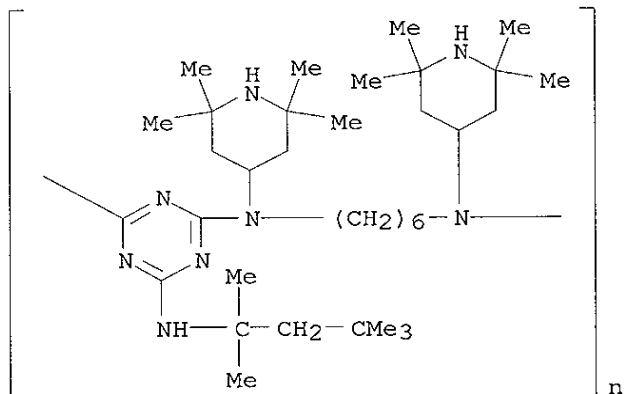
CRN 110-15-6

CMF C4 H6 O4



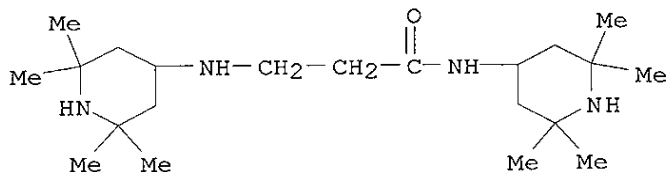
RN 71878-19-8 HCAPLUS

CN Poly[[6-[(1,1,3,3-tetramethylbutyl)amino]-1,3,5-triazine-2,4-diyl][(2,2,6,6-tetramethyl-4-piperidinyl)imino]-1,6-hexanediyl[(2,2,6,6-tetramethyl-4-piperidinyl)imino]] (9CI) (CA INDEX NAME)

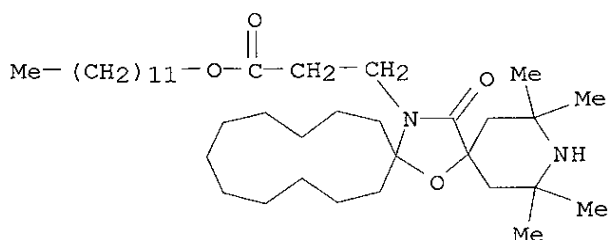


RN 76505-58-3 HCAPLUS

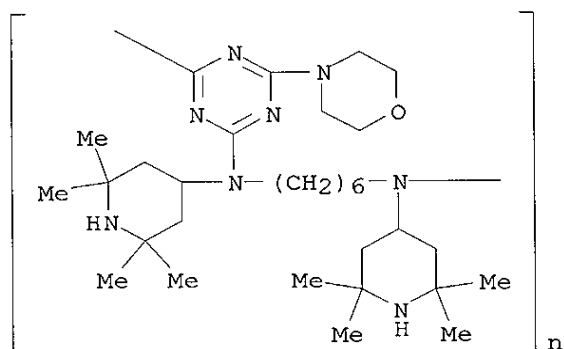
CN Propanamide, N-(2,2,6,6-tetramethyl-4-piperidinyl)-3-[(2,2,6,6-tetramethyl-4-piperidinyl)amino]- (9CI) (CA INDEX NAME)



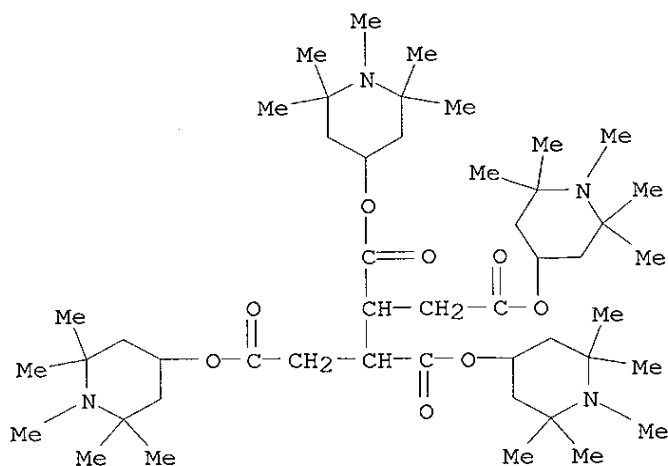
RN 85099-51-0 HCAPLUS
 CN 7-Oxa-3,20-diazadispiro[5.1.11.2]heneicosane-20-propanoic acid,
 2,2,4,4-tetramethyl-21-oxo-, dodecyl ester (9CI) (CA INDEX NAME)



RN 90751-07-8 HCAPLUS
 CN Poly[[6-(4-morpholinyl)-1,3,5-triazine-2,4-diyl][(2,2,6,6-tetramethyl-4-piperidinyl)imino]-1,6-hexanediyl[(2,2,6,6-tetramethyl-4-piperidinyl)imino]] (9CI) (CA INDEX NAME)

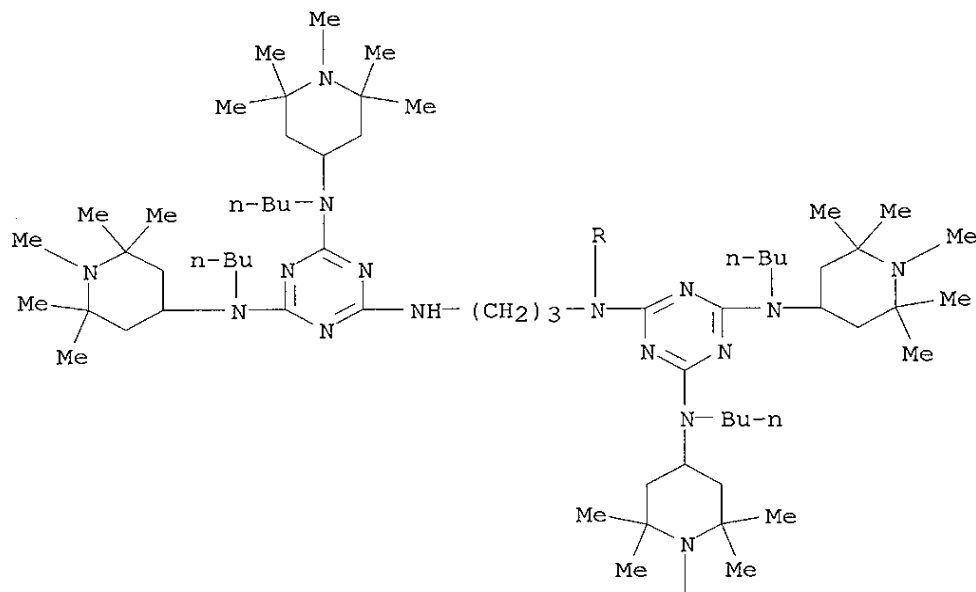


RN 91788-83-9 HCAPLUS
 CN 1,2,3,4-Butanetetracarboxylic acid, tetrakis(1,2,2,6,6-pentamethyl-4-piperidinyl) ester (9CI) (CA INDEX NAME)



RN 106990-43-6 HCAPLUS
 CN 1,3,5-Triazine-2,4,6-triamine, N,N'''-1,2-ethanediylbis[N-[3-[[4,6-bis[butyl(1,2,2,6,6-pentamethyl-4-piperidinyl)amino]-1,3,5-triazin-2-yl]aminopropyl]-N',N''-dibutyl-N',N''-bis(1,2,2,6,6-pentamethyl-4-piperidinyl)-(9CI) (CA INDEX NAME)

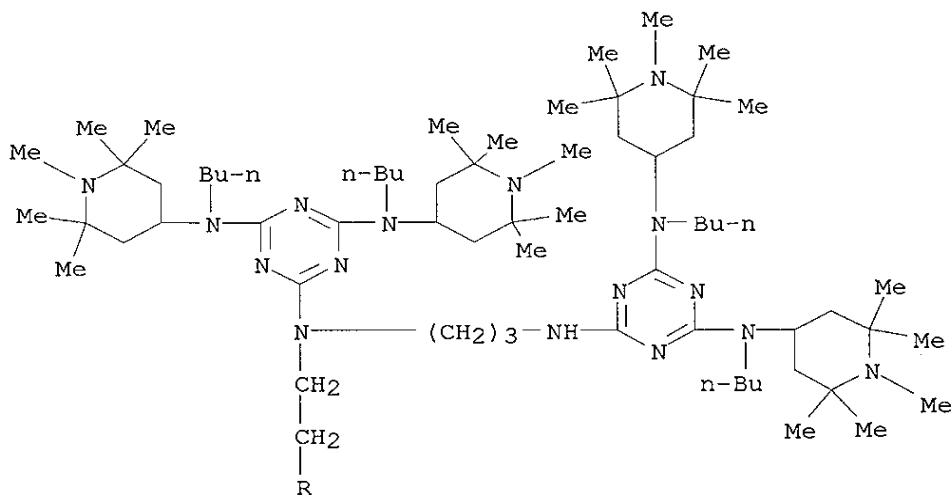
PAGE 1-A



PAGE 2-A



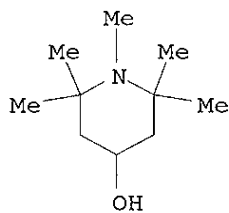
PAGE 3-A



RN 115055-30-6 HCAPLUS
 CN 1,2,3,4-Butanetetracarboxylic acid, polymer with
 .beta.,.beta.,.beta.,.beta.'-tetramethyl-2,4,8,10-
 tetraoxaspiro[5.5]undecane-3,9-diethanol, 1,2,2,6,6-pentamethyl-4-
 piperidiny ester (9CI) (CA INDEX NAME)

CM 1

CRN 2403-89-6
 CMF C10 H21 N O

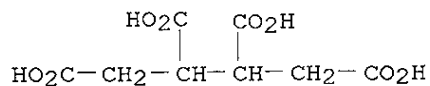


CM 2

CRN 182760-78-7
 CMF (C15 H28 O6 . C8 H10 O8)x
 CCI PMS

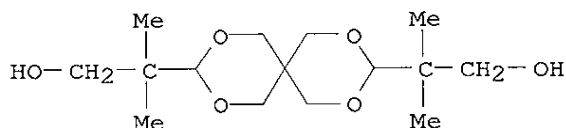
CM 3

CRN 1703-58-8
CMF C8 H10 O8

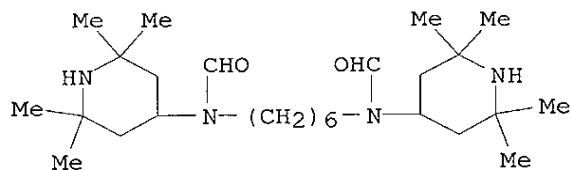


CM 4

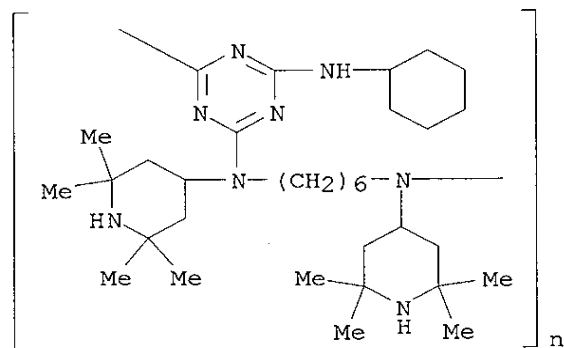
CRN 1455-42-1
CMF C15 H28 O6



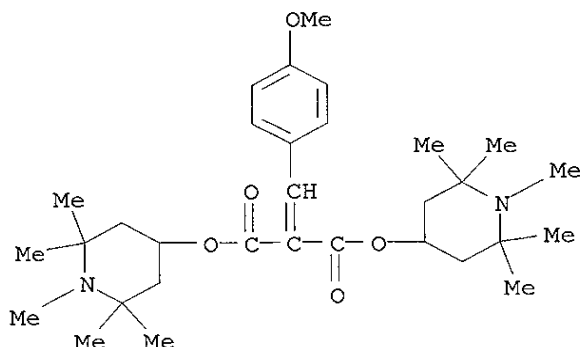
RN 124172-53-8 HCAPLUS
CN Formamide, N,N'-1,6-hexanediylbis[N-(2,2,6,6-tetramethyl-4-piperidiny)]-(9CI) (CA INDEX NAME)



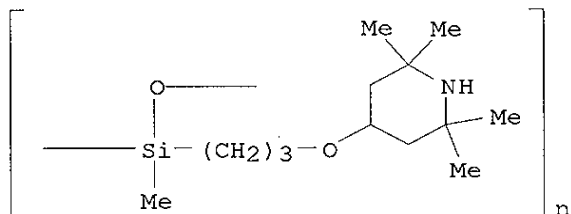
RN 131290-28-3 HCAPLUS
CN Poly[[6-(cyclohexylamino)-1,3,5-triazine-2,4-diyl][(2,2,6,6-tetramethyl-4-piperidiny)imino]-1,6-hexanediyl[(2,2,6,6-tetramethyl-4-piperidiny)imino]] (9CI) (CA INDEX NAME)



RN 147783-69-5 HCAPLUS
 CN Propanedioic acid, [(4-methoxyphenyl)methylene]-, bis(1,2,2,6,6-pentamethyl-4-piperidinyl) ester (9CI) (CA INDEX NAME)



RN 164648-93-5 HCAPLUS
 CN Poly[oxy[methyl[3-[(2,2,6,6-tetramethyl-4-piperidinyl)oxy]propyl]silylene]] (9CI) (CA INDEX NAME)

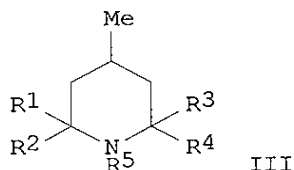


L61 ANSWER 9 OF 14 HCAPLUS COPYRIGHT 2003 ACS on STN
 AN 1997:104365 HCAPLUS
 DN 126:132461
 TI Vinyl chloride-ethylene copolymer agricultural films containing hindered amines with weatherability
 IN Machida, Toshimi; Kanai, Tokutarō; Kikui, Nobuyuki
 PA Achilles Corp, Japan
 SO Jpn. Kokai Tokkyo Koho, 6 pp.
 CODEN: JKXXAF
 DT Patent
 LA Japanese
 IC ICM C08L027-06
 ICS A01G009-14; A01G013-02; C08K005-3435
 CC 38-3 (Plastics Fabrication and Uses)
 Section cross-reference(s): 37

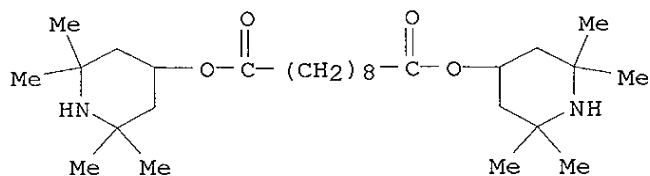
FAN.CNT 1		PATENT NO.		KIND	DATE	APPLICATION NO.	DATE
PI	JP 08302133	A2	19961119		JP 1995-136045	19950510	
	JP 2981413	B2	19991122				
PRAI	JP 1995-136045		19950510				

KATHLEEN FULLER EIC 1700/PARKER LAW 308-4290

GI

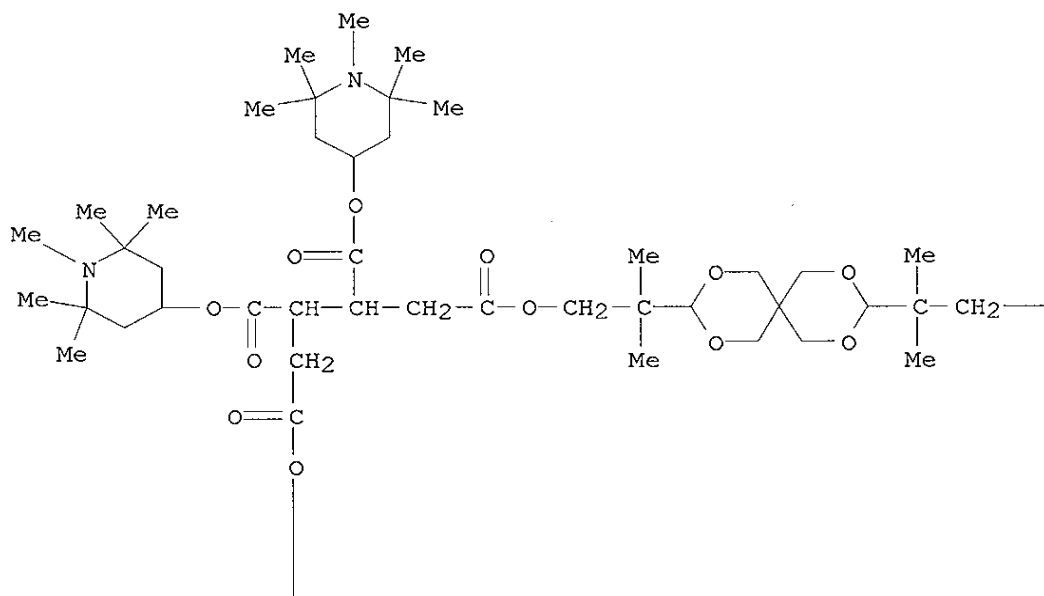


- AB Title films, useful for greenhouse showing corrosion inhibition at parts contacted to metal frames, are obtained from compns. contg. 100 parts mixts. of 5-100% 99.1/0.1-93.0/7.0 vinyl chloride (I)-ethylene (II) copolymer and 0-95% other PVC-based resins at total I contents 0.1-70% and 0.01-0.2 parts **hindered amines** having piperidinyll structure III (R1-5 = H, C1-4 alkyl). Thus, 98.5:1.5 I-II copolymer 100, di(2-ethylhexyl) phthalate 47, trixylyl phosphate 3.0, QOC(O)(CH₂)₈CO₂Q (Q = III; R1-4 = Me; R5 = H) 0.1, an epoxy resin 1.5, a Ba-Zn stabilizer 2.0, methylenebisstearoamide 0.3, a UV absorber 0.1, a sorbitan-type dripping inhibitor 2.0, and a F-contg. compd. 0.1 part was melt-kneaded at 175.degree. and calender-molded to give a film, which was used as greenhouse to show no yellowing at the part contacted to metal after 18 mo.
- ST vinyl chloride ethylene copolymer film; agricultural film PVC hindered amine; greenhouse PVC film corrosion resistance; piperidinyll hindered amine PVC film; weatherability PVC film hindered amine
- IT Weathering
(vinyl chloride-ethylene copolymer films contg. hindered amines for greenhouse with weatherability)
- IT Corrosion-resistant materials
Greenhouses
(vinyl chloride-ethylene copolymer films contg. hindered amines for greenhouse with yellowing resistance)
- IT 9002-86-2, PVC
RL: MOA (Modifier or additive use); USES (Uses)
(in vinyl chloride-ethylene copolymer films contg. hindered amines for greenhouse with yellowing resistance)
- IT **52829-07-9 91613-21-7 91788-83-9**
RL: MOA (Modifier or additive use); USES (Uses)
(vinyl chloride-ethylene copolymer films contg. hindered amines for greenhouse with yellowing resistance)
- IT 25037-78-9, Ethylene-vinyl chloride copolymer
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)
(vinyl chloride-ethylene copolymer films contg. hindered amines for greenhouse with yellowing resistance)
- IT **52829-07-9 91613-21-7 91788-83-9**
RL: MOA (Modifier or additive use); USES (Uses)
(vinyl chloride-ethylene copolymer films contg. hindered amines for greenhouse with yellowing resistance)
- RN 52829-07-9 HCAPLUS
- CN Decanedioic acid, bis(2,2,6,6-tetramethyl-4-piperidinyll) ester (9CI) (CA INDEX NAME)

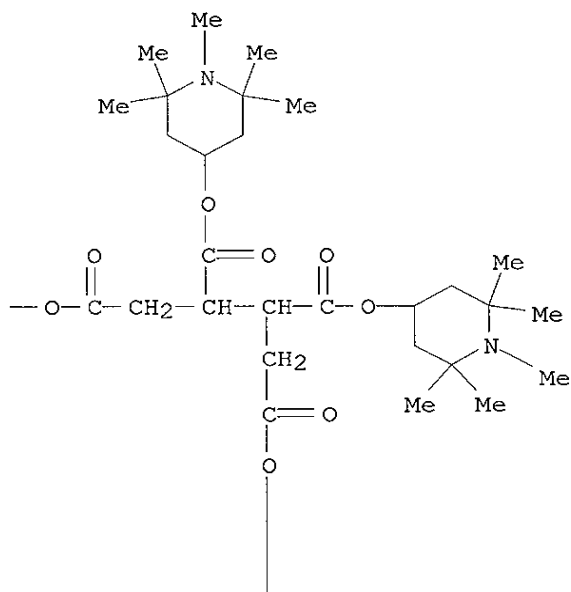


RN 91613-21-7 HCAPLUS
 CN 1,2,3,4-Butanetetracarboxylic acid, 1,1'-[2,4,8,10-tetraoxaspiro[5.5]undecane-3,9-diylbis(2,2-dimethyl-2,1-ethanediyl)]
 2,2',3,3',4,4'-hexakis(1,2,2,6,6-pentamethyl-4-piperidiny) ester (9CI)
 (CA INDEX NAME)

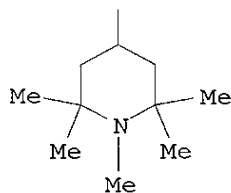
PAGE 1-A



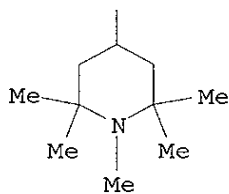
PAGE 1-B



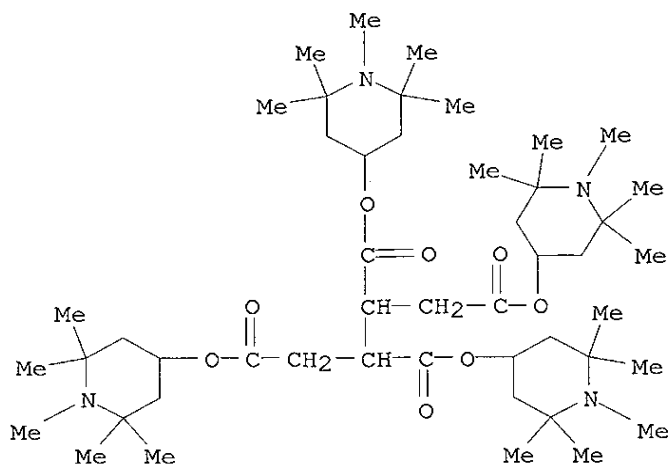
PAGE 2-A



PAGE 2-B



RN 91788-83-9 HCAPLUS
CN 1,2,3,4-Butanetetracarboxylic acid, tetrakis(1,2,2,6,6-pentamethyl-4-piperidiny) ester (9CI) (CA INDEX NAME)



L61 ANSWER 10 OF 14 HCAPLUS COPYRIGHT 2003 ACS on STN

AN 1994:682391 HCAPLUS

DN 121:282391

TI High-pot-life and dyeable coatings for lenses

IN Takeshita, Katsuyoshi; Nakajima, Mikito; Kubota, Satoshi

PA Seiko Epson Corp., Japan

SO Jpn. Kokai Tokkyo Koho, 8 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM C09D163-00

ICS C08K003-22; C08K003-24; C08K005-15; C08K005-17; G02B001-10

CC 42-10 (Coatings, Inks, and Related Products)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 06136318	A2	19940517	JP 1993-138665	19930610
PRAI	JP 1992-240910		19920909		

AB Title coatings comprise inorg. oxides with diam. of 1-100 m.mu., reactive silanes, polyfunctional epoxides, **Mg**(ClO4)2, and hindered amine light stabilizers. A compn. contg. Cataloid SN, Denacol EX 212, 3-glycidoxypropylmethyldiethoxysilane condensate, and Sanol LS 770, and **Mg**(ClO4)2 showed good pot life at room temp. for 1 mo and was coated on a polycarbonate lens to form a 2.3-.mu.m film with good dyeability.

ST dyeable epoxy siloxane coating lens; storage stability epoxy siloxane coating

IT Lenses
(dyeable and storage-stable epoxy siloxane coatings for lenses)

IT Oxides, uses
RL: MOA (Modifier or additive use); USES (Uses)

(fine particles; dyeable and storage-stable epoxy siloxane coatings for lenses)

IT Light stabilizers
(hindered amines; dyeable and storage-stable epoxy siloxane coatings for lenses)

IT Polycarbonates, miscellaneous
 RL: MSC (Miscellaneous)
 (lenses; dyeable and storage-stable epoxy siloxane coatings for lenses)

IT Siloxanes and Silicones, uses
 RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)
 (epoxy, dyeable and storage-stable epoxy siloxane coatings for lenses)

IT Amines, uses
 RL: MOA (Modifier or additive use); USES (Uses)
 (hindered, light stabilizer; dyeable and storage-stable epoxy siloxane coatings for lenses)

IT Epoxy resins, uses
 RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)
 (siloxane-, dyeable and storage-stable epoxy siloxane coatings for lenses)

IT Coating materials
 (storage-stable, dyeable and storage-stable epoxy siloxane coatings for lenses)

IT 10034-81-8, **Magnesium perchlorate**
 RL: MOA (Modifier or additive use); USES (Uses)
 (dyeable and storage-stable epoxy siloxane coatings for lenses)

IT 159012-23-4 159012-24-5 159012-25-6
 RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)
 (dyeable and storage-stable epoxy siloxane coatings for lenses)

IT 1306-38-3, Ceric oxide, uses 1314-23-4, Zirconia, uses 7631-86-9, Silica, uses 13463-67-7, Titania, uses
 RL: MOA (Modifier or additive use); USES (Uses)
 (fine particles; dyeable and storage-stable epoxy siloxane coatings for lenses)

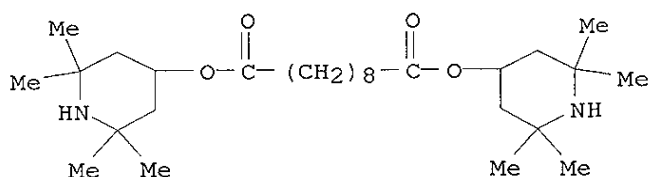
IT 25656-90-0, Poly(diethylene glycol bisallyl carbonate)
 RL: MSC (Miscellaneous)
 (lenses; dyeable and storage-stable epoxy siloxane coatings for lenses)

IT **52829-07-9**, Sanol LS 770 **73754-27-5**, Sanol LS 2626
 RL: MOA (Modifier or additive use); USES (Uses)
 (light stabilizer; dyeable and storage-stable epoxy siloxane coatings for lenses)

IT **52829-07-9**, Sanol LS 770 **73754-27-5**, Sanol LS 2626
 RL: MOA (Modifier or additive use); USES (Uses)
 (light stabilizer; dyeable and storage-stable epoxy siloxane coatings for lenses)

RN 52829-07-9 HCAPLUS

CN Decanedioic acid, bis(2,2,6,6-tetramethyl-4-piperidinyl) ester (9CI) (CA INDEX NAME)

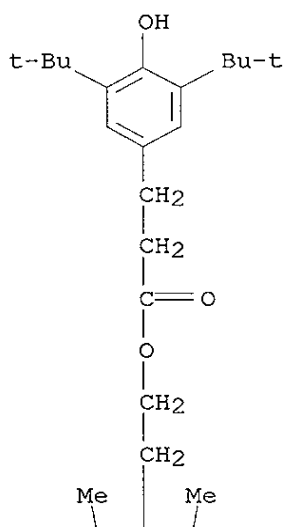


RN 73754-27-5 HCAPLUS

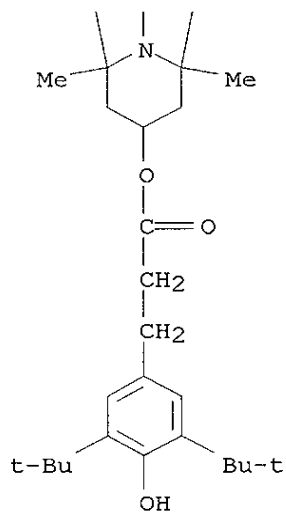
CN Benzenepropanoic acid, 3,5-bis(1,1-dimethylethyl)-4-hydroxy-,

1-[2-[3-[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]-1-oxopropoxy]ethyl]-
2,2,6,6-tetramethyl-4-piperidinyl ester (9CI) (CA INDEX NAME)

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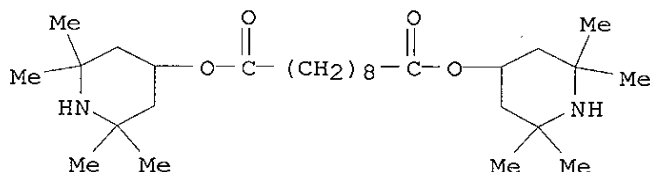
PAGE 2-A



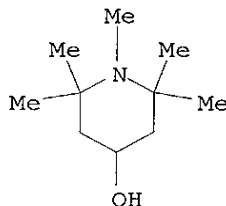
DN 114:83188
 TI Heat- and light-resistant milk white methacrylic resins and their manufacture
 IN Yoshimura, Osamu; Suzuki, Tetsuo; Bando, Satoshi; Arakawa, Koji; Chatani, Michio
 PA Kyowa Gas Chemical Industry Co., Ltd., Japan
 SO Jpn. Kokai Tokkyo Koho, 9 pp.
 CODEN: JKXXAF
 DT Patent
 LA Japanese
 IC ICM C08F220-14
 ICS C08F002-44; C08J005-00; C08L033-12
 ICA C08F220-20; C08F299-02; F21V001-22; F21V003-04
 CC 37-3 (Plastics Manufacture and Processing)
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 02202504	A2	19900810	JP 1989-21910	19890131
PRAI	JP 1989-21910		19890131		
AB	Title resins, useful for covers for lights, comprise 100 parts polymers composed of 30-98% monofunctional unsatd. monomers mainly contg. Me methacrylate (I) and 2-70% polyfunctional unsatd. monomers, and 0.1-5 parts inorg. powders. The resins are manufd. by dispersing inorg. powders 0.1-5, benzotriazole-based UV absorbers 0-2, and hindered amine-based light stabilizers 0-2 parts in 100 parts the monomer mixts. or polymer-contg. syrups, polymg., and curing. Thus, 80 parts a syrup obtained by partially polymn. of I was mixed with 2-(5-methyl-2-hydroxyphenyl)benzotriazole 0.3, bis(2,2,6,6-tetramethyl-4-piperidyl) sebacate 0.5, 1,1-bis(tert-butylperoxy)-3,3,5-trimethylcyclohexane 0.1, neopentyl glycol dimethacrylate 20, powd. Al(OH)3 (av. particle size 3 .mu.m) 2, and TiO2 paste 0.3 parts, and cast at 70-130.degree. to give 2-mm milk white plates showing heat distortion temp. 140.degree., which did not deform after 3-mo irradi. of 300 W mercury lamp at 110.degree. and 30 cm distance.				
ST	methacrylate polymer plate milk white; heat resistant methacrylate polymer; light cover methacrylate polymer; neopentyl glycol dimethacrylate polymer plate; aluminum hydroxide methacrylate polymer plate; hydroxyphenyl benzotriazole methacrylate polymer plate; tetramethylpiperidyl sebacate methacrylate polymer plate				
IT	Electric lamps (covers for, methacrylate resins contg. inorg. powders and stabilizers as, milk white)				
IT	Heat-resistant materials (methacrylate resins, contg. inorg. powders, light-resistant milk white, for covers for lights)				
IT	Mica-group minerals, uses and miscellaneous RL: USES (Uses) (powd., methacrylate resins contg. Clarite 600W, milk-white, heat- and light-resistant, for covers for lights)				
IT	2440-22-4, 2-(5-Methyl-2-hydroxyphenyl)benzotriazole 70321-86-7 RL: USES (Uses) (UV absorbers, methacrylate resins contg., for covers for lights)				
IT	52829-07-9, Bis(2,2,6,6-tetramethyl-4-piperidyl) sebacate 107119-91-5, Mark LA 62 RL: USES (Uses) (light stabilizers, methacrylate resins contg., for covers for lights)				
IT	25101-19-3P, Methyl methacrylate-triethylene glycol dimethacrylate copolymer 25777-71-3P, Ethylene glycol dimethacrylatemethyl methacrylate				

- copolymer 28931-67-1P, Methyl methacrylate-trimethylolpropane trimethacrylate copolymer 32756-06-2P, 1,3-Butylene glycol dimethacrylatemethyl methacrylate copolymer 52857-82-6P, Methyl methacrylate-neopentyl glycol dimethacrylate copolymer 53621-05-9P, 1,6-Hexanediol dimethacrylatemethyl methacrylate copolymer 73882-59-4P, Methyl methacrylate-tetramethylolmethane tetramethacrylate copolymer
 RL: PREP (Preparation)
 (manuf. of, as heat-resistant milk-white compns. contg. inorg. powders, for covers for lights)
- IT 1305-62-0, Calcium hydroxide, uses and miscellaneous 1309-42-8, **Magnesium** hydroxide 14808-60-7, Crystalite AA, uses and miscellaneous 21645-51-2, Aluminum hydroxide, uses and miscellaneous
 RL: USES (Uses)
 (powd., methacrylate resins contg., milk white heat- and light-resistant, for covers for lights)
- IT 471-34-1, Calcium carbonate, uses and miscellaneous
 RL: USES (Uses)
 (pptd., powd., methacrylate resins contg., milk white heat- and light-resistant, for covers for lights)
- IT 52829-07-9, Bis(2,2,6,6-tetramethyl-4-piperidyl) sebacate 107119-91-5, Mark LA 62
 RL: USES (Uses)
 (light stabilizers, methacrylate resins contg., for covers for lights)
- RN 52829-07-9 HCAPLUS
 CN Decanedioic acid, bis(2,2,6,6-tetramethyl-4-piperidinyl) ester (9CI) (CA INDEX NAME)

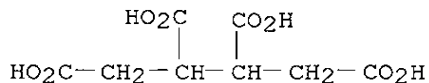


- RN 107119-91-5 HCAPLUS
 CN 1,2,3,4-Butanetetracarboxylic acid, 1,2,2,6,6-pentamethyl-4-piperidinyl tridecyl ester (9CI) (CA INDEX NAME)
- CM 1
- CRN 2403-89-6
 CMF C10 H21 N O



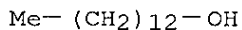
CM 2

CRN 1703-58-8
CMF C8 H10 O8



CM 3

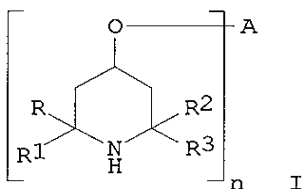
CRN 112-70-9
CMF C13 H28 O



L61 ANSWER 12 OF 14 HCAPLUS COPYRIGHT 2003 ACS on STN
AN 1984:175921 HCAPLUS
DN 100:175921
TI Vinyl chloride polymer films for agricultural coverings
PA Mitsubishi Monsanto Chemical Co., Japan
SO Jpn. Kokai Tokkyo Koho, 9 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
IC C08L027-06; C08K005-34
CC 37-6 (Plastics Manufacture and Processing)
Section cross-reference(s): 19, 42

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 58206652	A2	19831201	JP 1982-90248	19820527
	JP 63051458	B4	19881014		
PRAI	JP 1982-90248		19820527		
GI					



AB A flexible vinyl chloride-based film for use as an agricultural covering with improved water and dust-attraction resistance contains 0.02-8% **hindered amine** (I; A = mono- to tetravalent acyl; R-R3 =

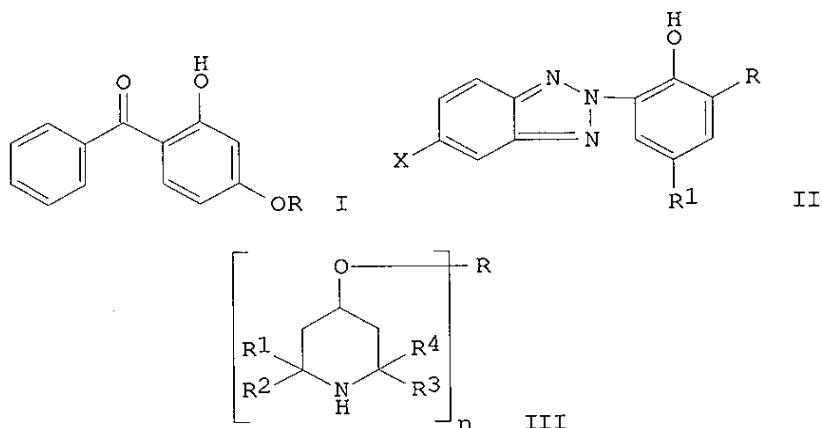
C1-4 alkyl; n = 1-4) and is coated with an acrylic copolymer contg. 5-40% hydroxyalkyl (meth)acrylate and 0-20% carboxy-contg. vinyl monomer. Thus, a mixt. of PVC [9002-86-2] (d.p. 1400) 100, dioctyl phthalate 50, tricresyl phosphate 5, epoxidized soybean oil 1, Ba-Zn stabilizer 1.5, Ba stearate 0.2, Zn stearate 0.4, sorbitan monostearate 1.5, and I (A = sebacoyl; R = R1 = R2 = R3 = Me; n = 2) (II) [52829-07-9] 0.5 part was kneaded at 180.degree. and formed into a 0.1-mm film. The film was then coated with a 20% iso-PrOH soln. of 30:25:45 Bu acrylate-2-hydroxypropyl acrylate-Me methacrylate copolymer [89761-77-3] to a thickness of 2 .mu. (dry), exhibiting no whitening after 24-h immersion in 50.degree. water and .gtoreq.80% light transmittance (at 555 m.mu.) after 18 mo of outdoor exposure, compared with whitening over all parts of the film and .ltoreq.45% transmittance, resp., for a film laminate without II.

- ST PVC film agricultural covering; tetramethylpiperidyl sebacate PVC film greenhouse; hydroxypropyl acrylate copolymer coating greenhouse; methyl methacrylate copolymer coating greenhouse; butyl acrylate copolymer coating greenhouse
- IT Greenhouses
(PVC films contg. hindered amines for, coated with acrylic polymers, water- and dust-attraction-resistant)
- IT Coating materials
(hydroxyl group-contg. acrylic polymers, for PVC films, for water- and dust-attraction-resistant agricultural coverings)
- IT 9002-86-2
RL: USES (Uses)
(films, flexible, contg. hindered amines, coated with acrylic polymers, water- and dust-attraction-resistant, for agricultural coverings)
- IT 25951-39-7 26351-99-5 52664-72-9 89761-77-3 89761-78-4
RL: USES (Uses)
(flexible PVC films coated with, water- and dust-attraction-resistant, for agricultural coverings)
- IT 52829-07-9 69825-09-8 85279-79-4
RL: USES (Uses)
(flexible PVC films contg., coated with acrylic polymers, for agricultural coverings)

L61 ANSWER 13 OF 14 HCAPLUS COPYRIGHT 2003 ACS on STN
AN 1984:104474 HCAPLUS
DN 100:104474
TI PVC sheets for use as agricultural coverings
PA Mitsubishi Monsanto Chemical Co., Japan
SO Jpn. Kokai Tokkyo Koho, 12 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
IC C08L027-06; C08K005-34
CC 37-6 (Plastics Manufacture and Processing)
Section cross-reference(s): 19, 38

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 58142928	A2	19830825	JP 1982-27044	19820222
	JP 63020458	B4	19880427		
PRAI	JP 1982-27044		19820222		
GI					



- AB A weather-resistant vinyl chloride-based polymer film for use as an agricultural covering (esp. for cultivation of eggplant) contains as UV light absorber a benzophenone deriv. (I; R = C1-18 alkyl) and/or a benzotriazole deriv. (II; R, R1 = H, C1-18 alkyl; X = H, halogen) and 0.05-1.0 phr **hindered amine** (III; R1-R4 = C1-4 alkyl; R = acyl; n = 1-4) and has 25-60% av. transmittance at wavelengths between 300 and 350 nm. Thus, a **mixt.** of PVC [9002-86-2] (d.p. 1400) 100, dioctyl phthalate 45, EP 828 (epoxy resin) 1, Ba-Zn stabilizer 1.5, Ba stearate 0.2, Zn stearate 0.4, sorbitan monostearate 1.5, 2-hydroxy-4-n-octyloxybenzophenone (IV) [1843-05-6] 0.12, and 4-benzoyloxy-2,2,6,6-tetramethylpiperidine [26275-88-7] 0.20 part was kneaded at 165.degree. and calendered to give a film (thickness 0.1 mm; av. transmittance 39% at 300-350 nm) exhibiting .gtoreq.80% retention of elongation after 18 mo of outdoor use and producing ripe eggplants with a normal color. A film of similar compn. except contg. 0.04 part IV (66% transmittance of light) exhibited 60-80% retention of elongation with some film discoloration, although it also produced eggplant with normal color.
- ST PVC sheet agricultural covering eggplant; benzophenone PVC agricultural covering sheet; piperidine deriv PVC agricultural covering
- IT Greenhouses
(cover films for, from PVC contg. hindered amines and UV stabilizers, weather-resistant)
- IT Eggplant
(cultivation of, PVC cover films for)
- IT 26275-88-7 52829-07-9 66569-20-8
RL: USES (Uses)
(PVC sheets contg. UV absorbers and, for agricultural coverings, weather-resistant)
- IT 131-56-6 131-57-7 1843-05-6 2440-22-4 3147-76-0 3896-11-5
RL: USES (Uses)
(PVC sheets contg. hindered amines and, for agricultural coverings, weather-resistant)
- IT 9002-86-2
RL: USES (Uses)
(sheets, contg. hindered amines and UV light absorbers, for agricultural coverings, weather-resistant)

L61 ANSWER 14 OF 14 HCAPLUS COPYRIGHT 2003 ACS on STN

KATHLEEN FULLER EIC 1700/PARKER LAW 308-4290

AN 1983:144520 HCAPLUS
 DN 98:144520
 TI Hindered amine light stabilizers for polymers
 IN Hoffman, Joseph A.
 PA American Cyanamid Co. , USA
 SO U.S., 6 pp.
 CODEN: USXXAM
 DT Patent
 LA English
 IC C08K005-35; C08K005-34; C07D413-12; C07D401-12; C07D211-06
 NCL 524096000
 CC 37-6 (Plastics Manufacture and Processing)
 Section cross-reference(s): 35

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 4370430	A	19830125	US 1981-297681	19810831
PRAI	US 1981-297681		19810831		

AB A hindered amine light stabilizer having the formula
 $H[NRZNR1SO2Z1SO2]nR2$ [R, R1 = H, C1-20 alkyl, (un)substituted piperidyl; Z
 = C2-20 alkylene which is interrupted by O, S, or N(R3), C5-10
 cycloalkylene, C6-12 arylene, C8-16 aralkylene; R3 = H, C1-20 alkyl,
 (un)substituted piperidyl; Z1 = C6-12 (un)substituted arylene; R2 =
 halogen, (di)(C1-8 alkyl)amino, piperidyl, pyrrolidyl, morpholino, N(R)
 ZN(R1)H; n = 1-5] was effective for polymers, particularly
 polyolefins. Thus, a mixt. of 12.0 g 4,4'-
 (hexamethylenediimino)bis(2,2,6,6-tetramethylpiperidine in 300 mL water
 was treated with a mixt. of 8.2 g 1,3-(ClO2S)2C6H4 in 200 mL
 CH2Cl2 in a blender for 10 min to give 8.0 g polymer [85227-00-5
]. A blend contg. the above product 0.25, unstabilized polypropylene
 [9003-07-0] 100, and a processing antioxidant 0.1g was milled at 350-370
 F.degree. for 5 min and compression molded at 400.degree. F into a film
 4-5 mils thick. The film exhibited failure after 800 h of exposure to
 xenon arc as shown by a 0.1% increase in the carbonyl content of the film.

ST light stabilizer hindered amine polymer; piperidine light stabilizer
 polypropylene; benzenedisulfonyl chloride copolymer light stabilizer;
 polysulfonamide piperidine deriv light stabilizer

IT Light stabilizers
 (hindered amine-contg. disulfonamides, for polypropylene)

IT Polysulfonamides
 RL: USES (Uses)
 (hindered piperidyl-modified, light stabilizers, for polyolefins)

IT 9003-07-0
 RL: USES (Uses)
 (light stabilizers for, tetramethylpiperidyl-modified polysulfonamides
 as)

IT 109-73-9, uses and miscellaneous
 RL: USES (Uses)
 (light stabilizers, contg. tetramethylpiperidyl-modified
 polysulfonamides, for polypropylene)

IT 85227-00-5 85241-18-5
 RL: MOA (Modifier or additive use); USES (Uses)
 (light stabilizers, for polypropylene)

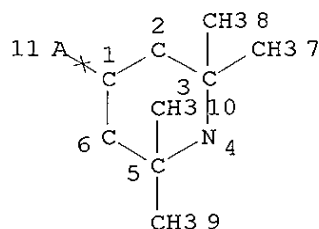
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L37 11 SEA FILE=REGISTRY ABB=ON (106990-43-6/BI OR 11097-59-9/BI OR
 178261-60-4/BI OR 178261-61-5/BI OR 557-04-0/BI OR 557-05-1/BI

KATHLEEN FULLER EIC 1700/PARKER LAW 308-4290

OR 70198-29-7/BI OR 71878-19-8/BI OR 9002-88-4/BI OR 9003-07-0/
BI OR 9010-79-1/BI)
STR

L38



NODE ATTRIBUTES:
NSPEC IS RC AT 11
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 11

STEREO ATTRIBUTES: NONE

L40 20621 SEA FILE=REGISTRY SSS FUL L38
L41 11750 SEA FILE=HCAPLUS ABB=ON L40
L43 25 SEA FILE=HCAPLUS ABB=ON L41 (L) HINDER? (3A) AMINE# (L) MIXTURE?
L44 29 SEA FILE=HCAPLUS ABB=ON L41 AND HINDER? (3A) AMINE# (3A) MIXTURE?

L45 50 SEA FILE=HCAPLUS ABB=ON L43 OR L44
L46 8 SEA FILE=HCAPLUS ABB=ON L45 AND (ZN OR ZINC OR MG OR MAGNESIUM
)
L51 37 SEA FILE=HCAPLUS ABB=ON (TWO OR DIFFERENT) (3A) HINDER? (3A) AMINE

L52 24 SEA FILE=HCAPLUS ABB=ON L41 AND L51
L53 0 SEA FILE=HCAPLUS ABB=ON L52 AND (ZN OR ZINC OR MG OR MAGNESIUM
)
L54 78 SEA FILE=HCAPLUS ABB=ON (TWO OR 2) (1W) HINDER? (3A) AMINE#
L55 50 SEA FILE=HCAPLUS ABB=ON L41 AND L54
L56 7 SEA FILE=HCAPLUS ABB=ON L55 AND (ZN OR ZINC OR MG OR MAGNESIUM
)
L57 3 SEA FILE=REGISTRY ABB=ON L37 AND (1/ZN OR 1/MG)
L58 10218 SEA FILE=HCAPLUS ABB=ON L57
L59 4 SEA FILE=HCAPLUS ABB=ON L45 AND L58
L60 1 SEA FILE=HCAPLUS ABB=ON (L52 OR L54) AND L58
L61 14 SEA FILE=HCAPLUS ABB=ON L46 OR L53 OR L56 OR L59 OR L60
L62 48 SEA FILE=HCAPLUS ABB=ON COMBINATION# (3A) HINDER? (3A) AMINE#
L63 38 SEA FILE=HCAPLUS ABB=ON L41 AND L62
L64 5 SEA FILE=HCAPLUS ABB=ON L63 AND (L58 OR ZN OR MG OR ZINC OR
MAGNESIUM)
L65 3 SEA FILE=HCAPLUS ABB=ON (L61 OR L64) NOT L61

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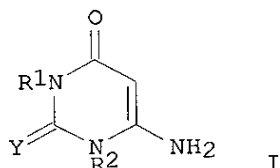
L65 ANSWER 1 OF 3 HCAPLUS COPYRIGHT 2003 ACS on STN
AN 1997:374625 HCAPLUS
DN 126:344216

KATHLEEN FULLER EIC 1700/PARKER LAW 308-4290

TI Stabilizer combinations for chlorinated polymers, especially poly(vinyl chloride)
 IN Wehner, Wolfgang; Friedrich, Hans-helmut; Malzacher, Kornelia; Mehner, Hans-ludwig; Drewes, Rolf
 PA Ciba Specialty Chemicals Holding Inc., Switz.
 SO Eur. Pat. Appl., 1-43
 CODEN: EPXXDW
 DT Patent
 LA German
 IC ICM C08K005-00
 ICS C08K013-02
 ICA C08L027-06
 ICI C08K013-02, C08K005-3462, C08K003-34, C08K003-16, C08K003-22; C08K005-00, C08K005-04, C08K005-3462, C08K005-15, C08K005-3435, C08K005-57
 CC 37-6 (Plastics Manufacture and Processing)
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 768336	A2	19970416	EP 1996-810664	19961004
	EP 768336	A3	19980128		
	EP 768336	B1	20020918		
	R: AT, BE, DE, DK, ES, FR, GB, IT, NL, SE				
	TW 505676	B	20021011	TW 1996-85111925	19961001
	AU 9668041	A1	19970417	AU 1996-68041	19961004
	AU 714489	B2	20000106		
	EP 1046668	A2	20001025	EP 2000-117205	19961004
	EP 1046668	A3	20001102		
	R: AT, BE, DE, DK, ES, FR, GB, IT, NL, SE				
	AT 224423	E	20021015	AT 1996-810664	19961004
	ES 2134177	T3	20030216	ES 1996-810664	19961004
	EP 1325941	A1	20030709	EP 2003-3584	19961004
	R: AT, BE, DE, DK, ES, FR, GB, IT, NL, SE				
	EP 1327658	A1	20030716	EP 2003-3579	19961004
	R: AT, BE, DE, DK, ES, FR, GB, IT, NL, SE				
	EP 1327659	A1	20030716	EP 2003-3582	19961004
	R: AT, BE, DE, DK, ES, FR, GB, IT, NL, SE				
	EP 1327660	A1	20030716	EP 2003-3583	19961004
	R: AT, BE, DE, DK, ES, FR, GB, IT, NL, SE				
	EP 1327661	A1	20030716	EP 2003-3585	19961004
	R: AT, BE, DE, DK, ES, FR, GB, IT, NL, SE				
	EP 1327662	A1	20030716	EP 2003-3586	19961004
	R: AT, BE, DE, DK, ES, FR, GB, IT, NL, SE				
	US 5925696	A	19990720	US 1996-728870	19961010
	CA 2187708	AA	19970414	CA 1996-2187708	19961011
	NO 9604328	A	19970414	NO 1996-4328	19961011
	ZA 9608605	A	19970414	ZA 1996-8605	19961011
	CN 1154381	A	19970716	CN 1996-112735	19961011
	BR 9605107	A	19980707	BR 1996-5107	19961011
	JP 09125058	A2	19970513	JP 1996-291129	19961014
	US 6194494	B1	20010227	US 1998-107848	19980630
	AU 735549	B2	20010712	AU 1999-58328	19991105
	AU 9958328	A1	20000113		
	AU 759954	B2	20030501	AU 2000-72572	20001229
PRAI	CH 1995-2912	A	19951013		
	CH 1995-3151	A	19951107		
	EP 1996-810664	A3	19961004		
	EP 2000-117205	A3	19961004		
	AU 1999-58328	A3	19991105		

OS MARPAT 126:344216
GI



- AB A title compn. comprises (A) .gtoreq.1 pyrimidinone [I; R*1, R*2 = C1-12 alkyl, C3-6 alkenyl, (un)substituted C5-8 cycloalkyl, (un)substituted C7-9 phenylalkyl; R*1 .noteq. R*2 = H, C1-12 alkyl; Y = S, O] and (B) .gtoreq.1 of a perchlorate, glycidyl compd., .beta.-diketone or .beta.-ketoester, (poly)dihydropyridine, polyol or disaccharide alc., sterically hindered amine, zeolite, hydrotalcite, Dawsonite, alkali or alk. earth hydroxide or (hydrogen)carbonate or carboxylate, antioxidant and lubricant, and organotin stabilizer. For example, test specimens of a compn. contg. Evipol SH-6030 (suspension PVC) 100, CH 300 (Ph diisodecyl phosphite; lubricant) 0.8, Wax E 0.4, epoxidized soybean oil 2.0, Rhodiastab-50 0.2, Chimassorb-944 (II) 0.15 and 6-amino-1,3-dimethyluracil (III) 1.0 parts had yellowness index 29.1 after heating for 25 min at 190.degree., vs. >60 for a similar sample stabilized with 1.0 part bis(dodecyloxycarbonyl-2,6-dimethyl-1,4-dihydropyridine) (Stavinor D 507) instead of II and III.
- ST chlorinated polymer stabilization uracil deriv; polyvinyl chloride stabilizer uracil deriv; aminodimethyluracil stabilizer PVC heat degrdn; yellowing PVC uracil deriv stabilizer
- IT Ketones, uses
RL: MOA (Modifier or additive use); USES (Uses)
(1,3-diketones; stabilizer combinations for poly(vinyl chloride) contg.)
- IT Chalk
RL: MOA (Modifier or additive use); USES (Uses)
(Omyalite 30T; stabilizer combinations for chlorinated polymers, esp. poly(vinyl chloride))
- IT Zeolites (synthetic), uses
RL: MOA (Modifier or additive use); USES (Uses)
(P-type; stabilizer combinations for chlorinated polymers, esp. poly(vinyl chloride))
- IT Zeolite NaA
RL: MOA (Modifier or additive use); USES (Uses)
(Wessalith P; stabilizer combinations for chlorinated polymers, esp. poly(vinyl chloride))
- IT Polymers, properties
RL: POF (Polymer in formulation); PRP (Properties); USES (Uses)
(chlorine-contg.; stabilizer combinations for chlorinated polymers, esp. poly(vinyl chloride))
- IT Soybean oil
RL: MOA (Modifier or additive use); USES (Uses)
(epoxidized; stabilizer combinations for chlorinated polymers, esp. poly(vinyl chloride))
- IT Amines, uses
RL: MOA (Modifier or additive use); USES (Uses)
(hindered; stabilizer combinations for poly(vinyl

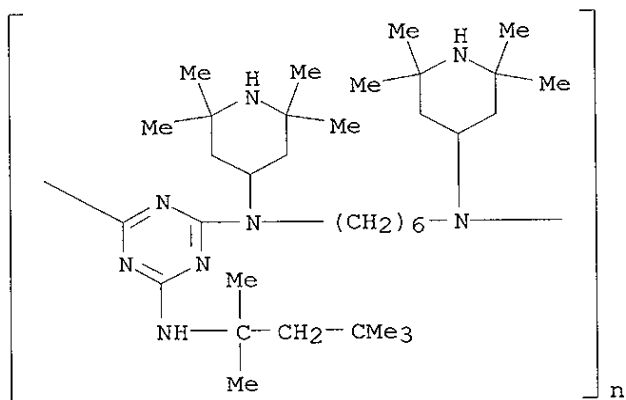
- chloride) contg.)
- IT Paraffin waxes, uses
RL: MOA (Modifier or additive use); USES (Uses)
(lubricants, Hostalub H 4; stabilizer combinations for chlorinated polymers, esp. poly(vinyl chloride))
- IT Fatty acids, uses
RL: MOA (Modifier or additive use); USES (Uses)
(montan-wax, ethylene esters, Wax E; stabilizer combinations for chlorinated polymers, esp. poly(vinyl chloride))
- IT Carboxylic acids, uses
RL: MOA (Modifier or additive use); USES (Uses)
(oxo, esters; stabilizer combinations for poly(vinyl chloride) contg.)
- IT Alcohols, uses
RL: MOA (Modifier or additive use); USES (Uses)
(polyhydric; stabilizer combinations for poly(vinyl chloride) contg.)
- IT Stabilizing agents
Yellowing prevention
Yellowing prevention
(stabilizer combinations for chlorinated polymers, esp. poly(vinyl chloride))
- IT Antioxidants
Lubricants
(stabilizer combinations for poly(vinyl chloride) contg.)
- IT Alkali metal hydroxides
Alkaline earth hydroxides
Disaccharides
Zeolites (synthetic), uses
RL: MOA (Modifier or additive use); USES (Uses)
(stabilizer combinations for poly(vinyl chloride) contg.)
- IT Polymer degradation
(thermooxidative, prevention; stabilizer combinations for chlorinated polymers, esp. poly(vinyl chloride))
- IT 77389-04-9
RL: MOA (Modifier or additive use); USES (Uses)
(D 26-155; stabilizer combinations for chlorinated polymers contg.)
- IT 585-88-6, Malbit CR
RL: MOA (Modifier or additive use); USES (Uses)
(Malbit CR; stabilizer combinations for chlorinated polymers contg.)
- IT 189687-79-4, Sodium perchlorate-Calcium carbonate-Calcium silicate mixture
RL: MOA (Modifier or additive use); USES (Uses)
(Mark 6045ACM; stabilizer combinations for chlorinated polymers contg.)
- IT 9002-86-2, PVC polymer
RL: POF (Polymer in formulation); PRP (Properties); USES (Uses)
(Solvic 268RC, Evipol SH 6030; stabilizer combinations for chlorinated polymers, esp. poly(vinyl chloride))
- IT 36265-41-5, Stavisor D 507
RL: MOA (Modifier or additive use); USES (Uses)
(Stavisor D 507; stabilizer combinations for chlorinated polymers contg.)
- IT 120218-34-0
RL: MOA (Modifier or additive use); USES (Uses)
(Synesal M; stabilizer combinations for chlorinated polymers contg.)
- IT 1592-23-0, Calcium stearate 189897-10-7, Hostalub H 12
RL: MOA (Modifier or additive use); USES (Uses)
(lubricant; stabilizer combinations for chlorinated polymers contg.)
- IT 126-58-9, Dipentaerythritol 463-79-6D, Carbonic acid, alkali metal and alk. earth metal salts, uses 557-05-1, Zinc stearate
6642-31-5, 6-Amino-1,3-dimethyluracil 7601-89-0, Sodium perchlorate

12539-23-0, Alcamizer I 16482-55-6, Dihydroxyaluminum sodium carbonate
 19372-44-2, Calcium acetylacetonate, uses 25068-38-6 25550-98-5,
 Phenyl diisodecyl phosphite 28825-96-9, Araldite PT 810 41740-15-2,
 6-Amino-1,3-diethyluracil 41862-16-2, 6-Amino-1,3-dibutyluracil
 58446-52-9, Rhodiastab 50 71878-19-8, Chimassorb 944
 RL: MOA (Modifier or additive use); USES (Uses)
 (stabilizer combinations for chlorinated polymers contg.)
 IT 7440-31-5D, Tin, org. compds., uses
 RL: MOA (Modifier or additive use); USES (Uses)
 (stabilizers; stabilizer combinations for chlorinated polymers contg.)
 IT 557-05-1, Zinc stearate 71878-19-8, Chimassorb
 944
 RL: MOA (Modifier or additive use); USES (Uses)
 (stabilizer combinations for chlorinated polymers contg.)
 RN 557-05-1 HCAPLUS
 CN Octadecanoic acid, zinc salt (9CI) (CA INDEX NAME)

HO₂C-(CH₂)₁₆-Me

● 1/2 Zn

RN 71878-19-8 HCAPLUS
 CN Poly[[6-[(1,1,3,3-tetramethylbutyl)amino]-1,3,5-triazine-2,4-
 diyl][(2,2,6,6-tetramethyl-4-piperidinyl)imino]-1,6-hexanediyl[(2,2,6,6-
 tetramethyl-4-piperidinyl)imino]] (9CI) (CA INDEX NAME)



L65 ANSWER 2 OF 3 HCAPLUS COPYRIGHT 2003 ACS on STN
 AN 1996:718321 HCAPLUS
 DN 125:330549
 TI Stabilizer combinations for synthetic polymers, especially olefin polymers
 IN Bonora, Michela
 PA Ciba-Geigy A.-G., Switz.
 SO Ger. Offen., 27 pp.
 CODEN: GWXXBX
 DT Patent

KATHLEEN FULLER EIC 1700/PARKER LAW 308-4290

LA German
 IC ICM C08K005-34
 ICS C08K005-3442; C08K003-20; C08J005-18; C08K013-02; C09K015-02;
 C09K015-30; A01G009-22
 ICA C07D211-94; C07D241-52; C07D295-24; C07D401-14
 CC 37-6 (Plastics Manufacture and Processing)
 Section cross-reference(s): 38

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 19616185	A1	19961031	DE 1996-19616185	19960423
	DK 9600452	A	19961027	DK 1996-452	19960417
	GB 2300192	A1	19961030	GB 1996-7893	19960418
	GB 2300192	B2	19991006		
	AU 9650806	A1	19961107	AU 1996-50806	19960422
	AU 713801	B2	19991209		
	CN 1136574	A	19961127	CN 1996-105445	19960423
	CN 1074014	B	20011031		
	CA 2174924	AA	19961027	CA 1996-2174924	19960424
	ZA 9603304	A	19961025	ZA 1996-3304	19960425
	NL 1002950	A1	19961029	NL 1996-1002950	19960425
	NL 1002950	C2	19980527		
	FR 2733502	A1	19961031	FR 1996-5221	19960425
	FR 2733502	B1	19990402		
	JP 08302063	A2	19961119	JP 1996-129094	19960425
	BR 9602043	A	19981006	BR 1996-2043	19960425
	ES 2126484	A1	19990316	ES 1996-940	19960425
	ES 2126484	B1	19991116		
	BE 1010551	A3	19981006	BE 1996-376	19960426
	US 5948836	A	19990907	US 1997-939219	19970929
	HK 1012655	A1	20000519	HK 1998-114016	19981218
PRAI	IT 1995-MI834	A	19950426		
	US 1996-635815	B1	19960422		

OS MARPAT 125:330549

AB Combinations of a sterically hindered hydroxylamine or its ether or ester (e.g., 1-cyclohexyloxy-4-stearoyloxy-2,2,6,6-tetramethylpiperidine) and a compd. contg. .gtoreq.1 oxo and/or OH group bonded to a metal atom [e.g., ZnO or hydrotalcite Mg4.5Al2(OH)13.CO3.3.5H2O] are useful as light and heat stabilizers for olefin polymers including polymers exposed to pesticides (e.g., polyethylene films used on greenhouses treated with insecticidal fumigants).

ST amine hydroxyl ether ester stabilizer polyolefin; hydroxylamine hindered ether ester stabilizer polyolefin; zinc oxide stabilizer mixt polyolefin; hydrotalcite stabilizer mixt polyolefin; polyethylene heat light stabilizer mixt; polypropene heat light stabilizer mixt; greenhouse film polyolefin stabilizer mixt; insecticide fumigant greenhouse polyolefin film stabilizer; light stabilizer mixt polyolefin; antioxidant mixt polyolefin

IT Antioxidants

Light stabilizers

(mixts. of hindered amines and compds. with oxo and OH groups bonded to metals for use in olefin polymers)

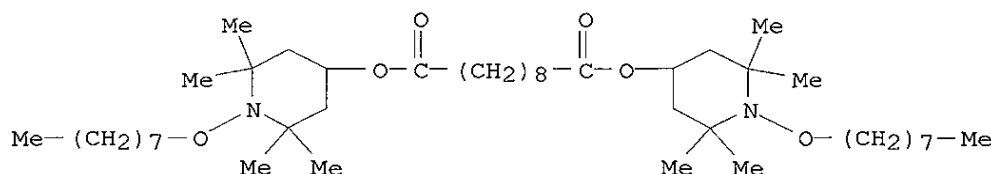
IT Greenhouses

(stabilizer mixts. for polyolefin films for covering greenhouses treated by insecticidal fumigants)

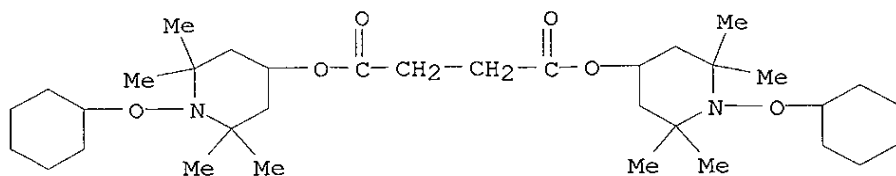
IT Insecticides

(fumigants, stabilizer mixts. for polyolefin films for covering greenhouses treated by)

- IT **Amines**, uses
 RL: MOA (Modifier or additive use); USES (Uses)
 (hindered, in stabilizer combinations for use in
 olefin polymers)
- IT 9003-07-0, Polypropene
 RL: MSC (Miscellaneous)
 (combinations of stabilizers for)
- IT 9002-88-4, Polyethylene
 RL: MSC (Miscellaneous); TEM (Technical or engineered material use); USES
 (Uses)
 (films; combinations of stabilizers for)
- IT 1309-42-8, **Magnesium** hydroxide 1309-48-4, **Magnesium**
 oxide, uses 1314-13-2, **Zinc** oxide, uses 1344-28-1, Aluminum
 oxide, uses 12304-65-3, Hydrotalcite 20427-58-1, **Zinc**
 hydroxide 21645-51-2, Aluminum hydroxide, uses 98036-77-2,
 Hydrotalcite **122586-52-1**, Bis(1-octyloxy-2,2,6,6-
 tetramethylpiperidin-4-yl) sebacate **122586-54-3**,
 Bis(1-cyclohexyloxy-2,2,6,6-tetramethylpiperidin-4-yl) succinate
122587-07-9 122587-08-0 130048-69-0,
 1-Cyclohexyloxy-4-stearoyloxy-2,2,6,6-tetramethylpiperidine 131494-77-4
 137575-21-4, Aluminum **magnesium zinc** carbonate oxide
 (Al₂Mg₃Zn(CO₃)₆) 137575-22-5, Aluminum **magnesium** carbonate
 oxide (Al₂Mg₄(CO₃)₆) **143128-90-9 150686-79-6**
183729-76-2, Bis(1-cyclohexyloxy-2,2,6,6-tetramethylpiperidin-4-
 yl) adipate
 RL: MOA (Modifier or additive use); USES (Uses)
 (in stabilizer combinations for olefin polymers)
- IT **122586-52-1**, Bis(1-octyloxy-2,2,6,6-tetramethylpiperidin-4-yl)
 sebacate **122586-54-3**, Bis(1-cyclohexyloxy-2,2,6,6-
 tetramethylpiperidin-4-yl) succinate **122587-07-9**
122587-08-0 130048-69-0, 1-Cyclohexyloxy-4-stearoyloxy-
 2,2,6,6-tetramethylpiperidine **143128-90-9 150686-79-6**
183729-76-2, Bis(1-cyclohexyloxy-2,2,6,6-tetramethylpiperidin-4-
 yl) adipate
 RL: MOA (Modifier or additive use); USES (Uses)
 (in stabilizer combinations for olefin polymers)
- RN 122586-52-1 HCAPLUS
- CN Decanedioic acid, bis[2,2,6,6-tetramethyl-1-(octyloxy)-4-piperidinyl]
 ester (9CI) (CA INDEX NAME)



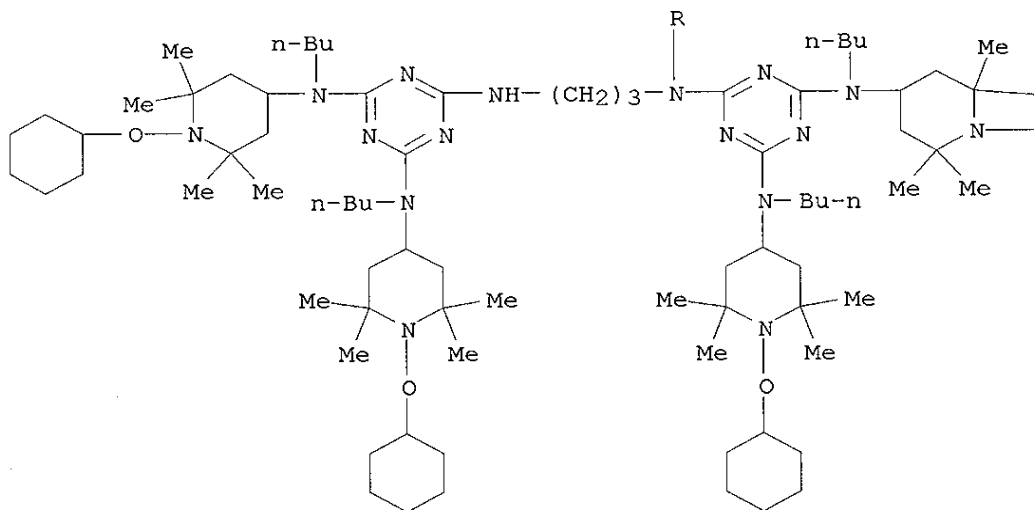
- RN 122586-54-3 HCAPLUS
- CN Butanedioic acid, bis[1-(cyclohexyloxy)-2,2,6,6-tetramethyl-4-piperidinyl]
 ester (9CI) (CA INDEX NAME)



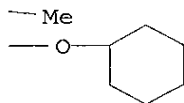
RN 122587-07-9 HCAPLUS

122587-07-9 NCI1105
CN 1,3,5-Triazine-2,4,6-triamine, N,N'''-1,2-ethanediylbis[N',N''-dibutyl-N-[3-[[4,6-bis[butyl[1-(cyclohexyloxy)-2,2,6,6-tetramethyl-4-piperidinyl]amino]-1,3,5-triazin-2-yl]amino]propyl]-N',N''-bis[1-(cyclohexyloxy)-2,2,6,6-tetramethyl-4-piperidinyl]- (9CI) (CA INDEX NAME)

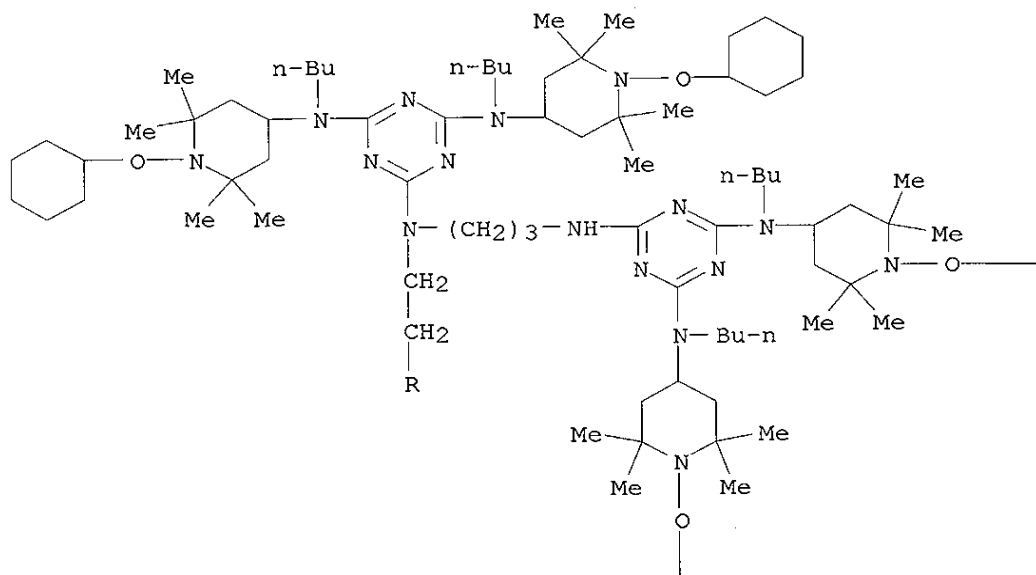
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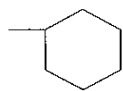
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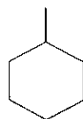
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PAGE 2-B

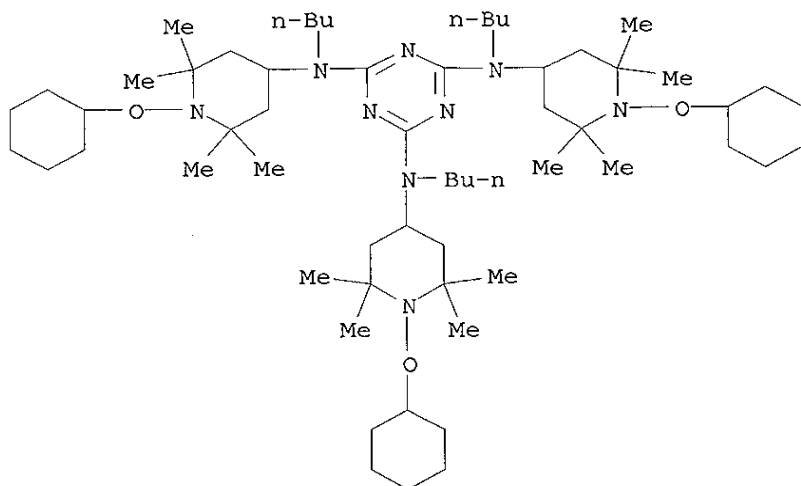


PAGE 3-A

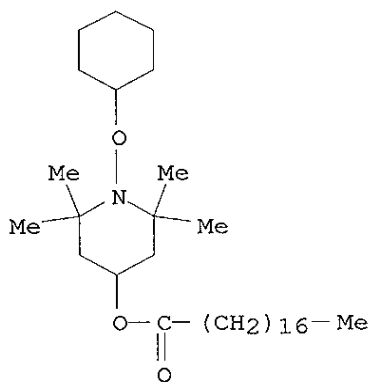


RN 122587-08-0 HCAPLUS
CN 1,3,5-Triazine-2,4,6-triamine, N,N',N''-tributyl-N,N',N''-tris[1-(cyclohexyloxy)-2,2,6,6-tetramethyl-4-piperidiny]- (9CI) (CA INDEX NAME)

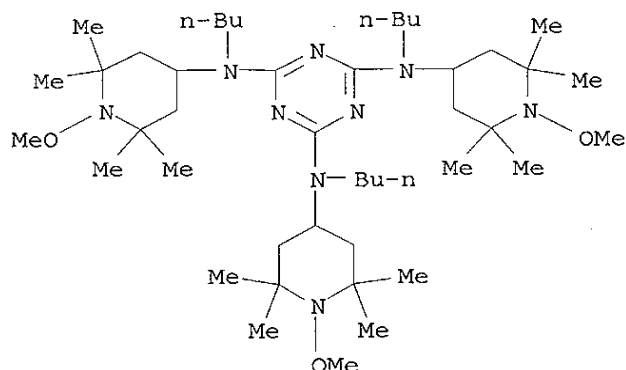
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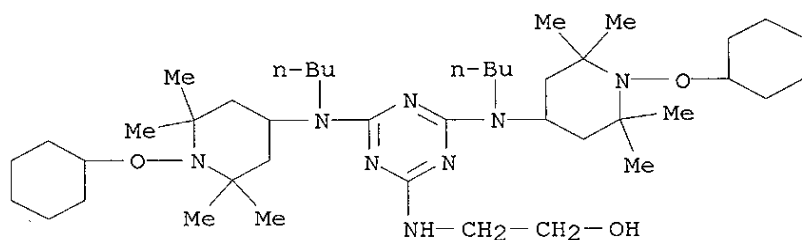
RN 130048-69-0 HCAPLUS
 CN Octadecanoic acid, 1-(cyclohexyloxy)-2,2,6,6-tetramethyl-4-piperidinyl ester (9CI) (CA INDEX NAME)



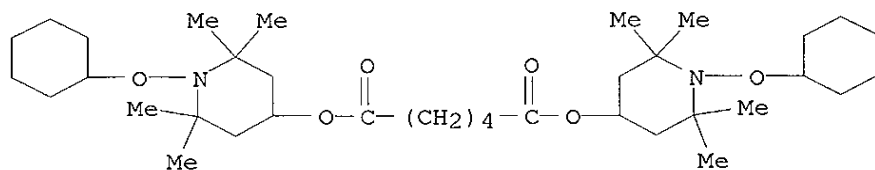
RN 143128-90-9 HCAPLUS
 CN 1,3,5-Triazine-2,4,6-triamine, N,N',N''-tributyl-N,N',N''-tris(1-methoxy-2,2,6,6-tetramethyl-4-piperidinyl)- (9CI) (CA INDEX NAME)



RN 150686-79-6 HCAPLUS
 CN Ethanol, 2-[[4,6-bis[butyl[1-(cyclohexyloxy)-2,2,6,6-tetramethyl-4-piperidiny]amino]-1,3,5-triazin-2-yl]amino]- (9CI) (CA INDEX NAME)



RN 183729-76-2 HCAPLUS
 CN Hexanedioic acid, bis[1-(cyclohexyloxy)-2,2,6,6-tetramethyl-4-piperidiny] ester (9CI) (CA INDEX NAME)



L65 ANSWER 3 OF 3 HCAPLUS COPYRIGHT 2003 ACS on STN
 AN 1987:479568 HCAPLUS
 DN 107:79568
 TI Metal-sulfonate/piperidine derivative combination protective coatings
 IN Hayner, Roger E.
 PA Ashland Oil, Inc., USA
 SO U.S., 12 pp.
 CODEN: USXXAM
 DT Patent
 LA English
 IC ICM B05D001-04

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ICS B05D001-06; B05D005-00; C04B009-02

NCL 427027000

CC 42-5 (Coatings, Inks, and Related Products)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 4650692	A	19870317	US 1985-794209	19851101
	CA 1269230	A1	19900522	CA 1986-521650	19861028
PRAI	US 1985-794209		19851101		
AB	Adding a combination of sterically hindered tertiary amines or derivs. e.g. piperidine derivs. to overbased Ca, Mg, Ba, Zn, etc. sulfonate, wax, and oxidized petrolatum compns. increases weather and salt-fog resistance. A coating contg. an overbased Ca sulfonate 72.9, oxidized petrolatum (Oxpet TAN15, acid no. 15) 7.3, microcryst. wax 7.3, Tinuvin 292 (I) 1.0, and Tinuvin 328 (II) 1.0 parts had salt spray corrosion resistance (ASTM B 117) 2000 h at 4.0 mil thickness and weatherability (ASTM G 26) >2000 h compared with no value and >560 resp., without I and II.				
ST	anticorrosive weather resistant coating; calcium sulfonate overbased coating; petroleum oxidized coating anticorrosive; piperidine deriv coating weatherable; UV stabilizer overbased coating				
IT	Coating materials (anticorrosive, weather-resistant, overbased alk. earth metal sulfonate contg. piperidine derivs., on steel)				
IT	Sulfonic acids, compounds RL: USES (Uses) (metal salts, alk. earth, overbased, contg. piperidine derivs., for improved weather-resistant coatings on steel)				
IT	Paraffin waxes and Hydrocarbon waxes, uses and miscellaneous RL: USES (Uses) (microcryst., overbased coatings contg., weather- and corrosion-resistant)				
IT	Petrolatum RL: USES (Uses) (oxidized, overbased coatings contg., weather- and corrosion-resistant)				
IT	Amines, uses and miscellaneous RL: USES (Uses) (tertiary, hindered, overbased coatings contg., with improved weather resistance)				
IT	12597-69-2 RL: MSC (Miscellaneous) (coating materials, anticorrosive, weather-resistant, overbased alk. earth metal sulfonate contg. piperidine derivs., on steel)				
IT	7440-70-2D, Calcium, sulfonates 109767-10-4 RL: TEM (Technical or engineered material use); USES (Uses) (coatings, contg. piperidine derivs., on steel)				
IT	25973-55-1 41556-26-7 , Tinuvin 292 RL: USES (Uses) (overbased coatings contg., with improved weather resistance)				
IT	41556-26-7 , Tinuvin 292 RL: USES (Uses) (overbased coatings contg., with improved weather resistance)				
RN	41556-26-7 HCAPLUS				
CN	Decanedioic acid, bis(1,2,2,6,6-pentamethyl-4-piperidinyl) ester (9CI) (CA INDEX NAME)				

